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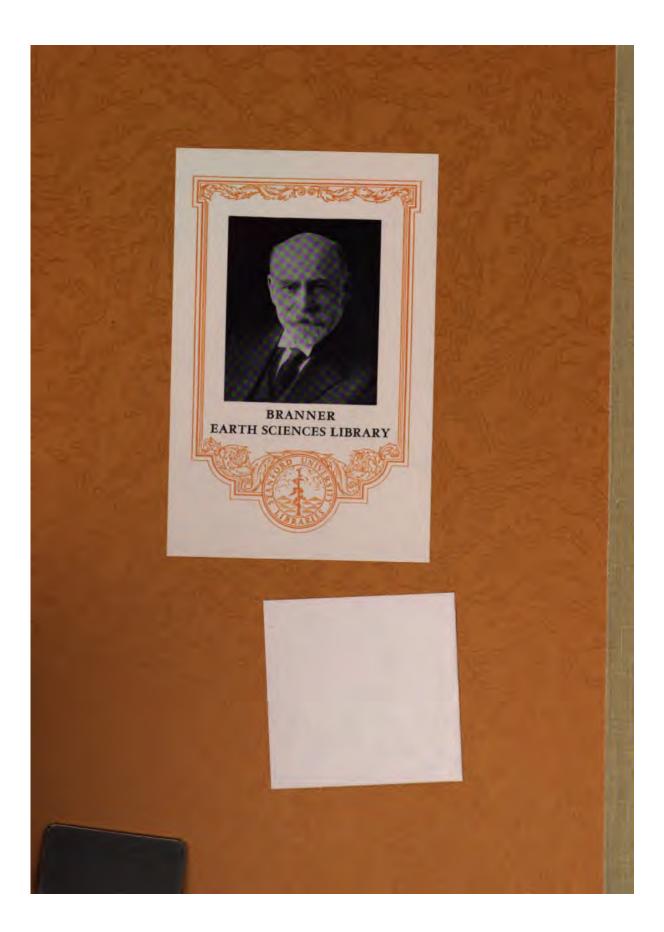
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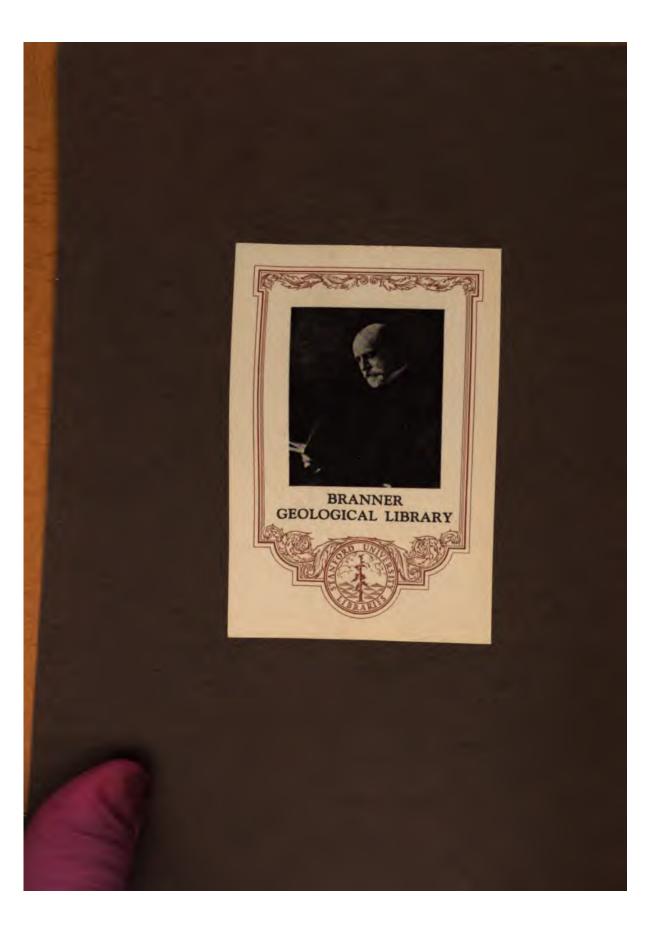
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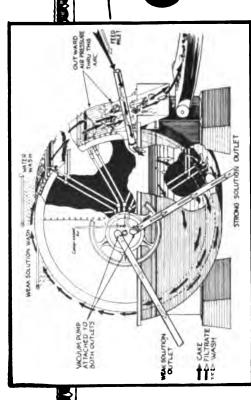
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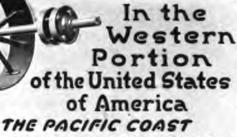
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STANFORD SECTION

Volume 8

STANFORD UNIVERSITY 1922

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YEARBOOK and DIRECTORY

VOLUME VIII. · 1922

Published by the Members of the Geological and Mining Society

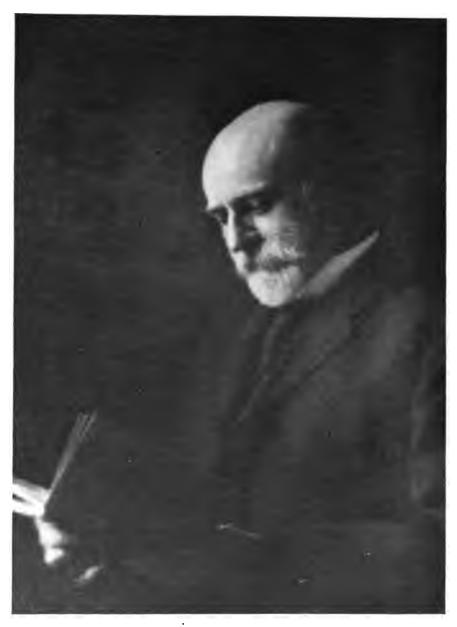
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With Volume VIII, the members of the Geological and Mining Society have attempted to further the usefulness and utility of the Yearbook by filling in the gaps of the directory. The locating of the missing members has developed into one of the most serious problems confronting the Publication Committee, and we hope that the Alumni will aid us by perusing the list of "Missing Members" and reporting anyone whose address is known. Inasmuch as the Yearbook is for the Alumni, your hearty support is appreciated.

The geographical index, which was started by last year's editor, is subject entirely to your coöperation, and where a change of address is contemplated, a note to the Society will further the cause very materially.

Your attetnion is called to the advertisers, whose support makes this issue possible. A mention of the Yearbook in answering advertisements will be of value to us.

THE PUBLICATION COMMITTEE.



JOHN CASPER BRANNER

John Casper Branner

BORN AT NEWMARKET, TENNESSEE, JULY 4, 1850 DIED AT STANFORD UNIVERSITY, MARCH 1, 1922. EDUCATED AT CORNELL UNIVERSITY.

GEOLOGIST OF THE IMPERIAL GEOLOGICAL SURVEY OF BRAZIL. PROFESSOR OF GEOLOGY IN THE UNIVERSITY OF INDIANA. DIRECTOR OF THE GEOLOGICAL SURVEY OF ARKANSAS. PIONEER FOUNDER AND HEAD OF THE DEPARTMENT OF GEOLOGY AND MINING OF STANFORD UNIVERSITY. VICE-PRESIDENT AND PRESIDENT OF STANFORD UNIVERSITY. FOR THIRTY YEARS THE HONORED TEACHER AND TRUSTED FRIEND OF STANFORD MEN.



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Dr. Graham John Mitchell	

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of past and present members of the Geology and Mining and Metallurgy Departments, arranged in the following order: Name, time served in the Departments, degrees and date conferred, permanent or home address, positions held and dates, present position and business address. The asterisk (*) indicates regular or associate membership in the Geology and Mining Society; double asterisk (**) indicates honorary membership; dagger (†) indicates deceased; (m) married.

ABRAHAM, ARTHUR WILLIAM: 1917-1918. A. B. Geology, 1920.
1626 N. Alexandria Ave., Los Angeles, Calif.
Geologist, Companias Petrolera Del A. G. W. I., S. A.;
Apartado 76, Tampico, Mexico, 1920.

*ABRAMS, HARRY W.: 1916-1918; 1919-1922; A. B. Geology, 1922.

Stanford University, California.

Ensign, U. S. N. R., San Pedro, California, 1918-1919.

Graduate Student in Geology, Stanford University, 1922—

,

*Adams, Sidney Francis: A. B. Geology, 1917; M. A. Geology, 1920.
Stanford University, Calif.
Sergeant, 363d Infantry, A. E. F., France, 1918-1919;
Graduate Student, Stanford University, 1919-1920;
Fellow, Stanford University, Spring 1920;
Geologist with Ralph Arnold, 1920-1921;
Geologist with R. P. McLoughlin, 1922—
485 California St., San Francisco, California.

*ADAMS, WILLIAM WELSH: A. B. Geology and Mining, 1910.

Los Angeles, Calif.

President, Stanford Section, G. M. S. A. U., 1909:
Engineer, Santa Gertrudes Mining Co., Pachuca, Hidalgo, Mexico, 1910—
Estacion Avalos, Estado Zacatecas, Mexico.

*AGUERREVERE, PEDRO I. 1916-1921. A. B. Geology, 1921.

Foreign Department, Henry L. Doherty & Co., 60 Wall Street, New York City, N. Y.

Draughtsman and Transitman, The Caribbean Petroleum Co., 1913-1916;

Geologist, Pomeroy & Hamilton, spring and summer, 1918;

Geologist, Henry L. Doherty & Co., 1919—

*Aid, Harry: 1921— Stanford University, California. Student in Geology.

*AINSWORTH, HOWARD DEARBORN: (m) (ex-'08) Geology and Mining, 1912.

Office 1209 Hobart Building, San Francisco, California.
Assayer, Nevada Mining, Reduction and Power Co., Dayton, Nevada, 1909;
Assayer, Tecopa Consolidated Mining Co., Tecopa, California, 1910;
Engineer, Alaska Treasure Gold Mining Co., Juneau, Alaska, 1910-March, 1912;
Fruit Grower, Dundee, Oregon, 1912-1913;
Examination and Construction, 1914;
Chief Engineer, The Pearsite Co., Inc., Clay City, Kentucky, 1915;
Engineer, Elkoro Mines Co., Jarbidge, Nevada, 1916;
Freitag & Ainsworth, Designing and Constructing Engineers, Hobart Building, San Francisco, California, 1917—

ALLEN, CHESTER B.: 1900-1905.

Secretary Minerals Separation, North American Corp.; 61 Broadway, New Yoork City.

†*ALLEN, LEIGHT: (m) A. B. Geology and Mining, 1899; B. A. McGill University, 1900.

*Ambrose, Arthur Warren: (m) A. B. Geology, 1914; E. M., 1920.
Southern Pacific Co., M. of W. Department, Oakland Pier, 1907-1909;
Assistant, Stanford Geological Survey, summer, 1914;
Geologist, Shell Co., San Francisco, California, 1915;
Pomeroy & Hamilton, Houston, Texas, 1917;
U. S. Bureau of Mines, Washington, D. C., 1918-1919;
U. S. Bureau of Mines, Bartlesville, Oklahoma, 1920;
Chief Petro. Tech., U. S. Bureau of Mines, Washington, D. C., 1921—

ş 🦻

AMENT, CHARLES DANA: 1916-1918. Grants Pass, Oregon. In Military Service, 1918-1919.

AMES, HERBERT HENRY: 1893-94. Chowchilla, California.

AMUNDSEN, W. B.: 1917-1918. Ocean Park, California. In U. S. Army, 1918-1919.

*Anderson, Dave M.: 1917-1918; A. B. Geology, 1921. Pasadena, California. Lieutenant, U. S. Infantry, 1918; Geologist, Pacific Gas & Electric Co., 1922—

ANDERSON, FRANK M.: (m) A. B. Willamette, 1889; A. B. Geology, 1895, M. S.

University of California, 1897.

2604 Etna Street, Berkeley, California.
Geologist, State Mining Bureau, San Francisco, 1899–1901;
Geologist, Southern Pacific Railroad Co., 1902–1911;
Curator, Geology and Paleontology, California Academy of Sciences, 1903–1917;
Consulting Geologist, 1912;
Geologist for Standard Oil Co. of New York, 1914–1915;
Consulting Geologist for Southern Pacific Co., 1915–1917;
Consulting Geologist for General Petroleum Co., 1918–1919;
Consulting Geologist, 1920—

*Anderson, Irving: (m) A. B. Geology and Mining, 1903. Wallace, Idaho. Consulting Mining Engineer.

*Anderson, Robert Edwin: A. B. Geology and Mining. 1913; E. M. 1914.

51 Vicksburg Street, San Francisco, California.

Advertising and Circulation Manager, Sunset Magazine, 460 Fourth Street, San Francisco, California, 1914-1917;

Proof Officer, E. O. C., Aberdeen Proving Grounds, Maryland, 1918;

Resident Engineer, Alta Vista Mining Co., Deering Fairhaven Precinct, Alaska, 1919;

City Sales Manager, C. L. Best Tractor Co., 730 Van Ness Ave., San Francisco, 1920—

Assistant Sales Manager, C. L. Best Tractor Co., San Leandro, California; San Francisco office, 127 Montgomery St.

*Anderson, Robert van Vleck: A. B. Geology, 1906.

Menlo Park, California, and 47 Parliament St., London, S. W., England. Zological and Geological Expedition to Japan, 1905;
Field Assistant and Geologic Aid, U. S. Geological Survey, 1906-1909;
Assistant Geological, U. S. Geological Survey, 1909-1911;
Geologist, U. S. Geological Survey, 1911-1913;
Consulting Petroleum Geologist, in partnership with A. C. Veatch, 1913;
Geologist for S. Pearson & Son, Ltd., 1913-1918;
Representative of War Trade Board in Sweden and American Delegate on Inter-Allied Trade Committee, Stockholm, 1918-1919.

Director and Chief Geologist, Whitehall Petroleum Corp., Ltd., London, 1919-1922.

*Andreen, Harry Mayo: A. B. Geology and Mining, 1913. Woodside, Calif. W OOGSIGE, Calif.
Assistant Assayer, Alaska-Treadwell Gold Mining Co., Treadwell, Alaska, 1913-1914;
Millman, Cyanide Plant Alaska-Treadwell Gold Mining Co., 1914-1915;
Retreatment Foreman, Alaska Gastineau Gold Mining Co., 1915-1916;
With J. F. Newsom and C. H. Munro, 1916-1917;
Field Geologist, Southern Pacific Railroad Co., 1917-1919;
Petroleum Geologist, Roxana Petroleum Corp., Rocky Mountain Division, 1919-1921;
Petroleum Geologist, Carter Oil Co., Tulsa, Okla., 1921—

*Andresen, Ludwig Paul: (m) A. B. Geology and Mining, 1912. 1064 Mallory Avenue, Portland, Oregon. Geologist, Carter Oil Co., Box 1130, Casper, Wyoming.

Andrews, George Lindley: 1916-1918. Los Angeles, California.

```
Applewhite, Samuel P., Jr.: 1919-
                                       Douglas, Arizona.
                            Student in Geology, Stanford University.
     Arleth, Karl: 1917-1921; A. B. Geology, 1921.
                           Long Beach, California.
Pacific Oil Company, Taft, California, 1921-
*Arnold, Ralph: (m) A. B. Geology, 1899; A. M. Geology, 1900; Ph. D., 1902

1205 Wilson Avenue, South Pasadena; office 639 So. Spring St., Los
Angeles, California, and 42 Broadway, New York, N. Y. Cable
address, "Ralfarnoil," Los Angeles and New York (Bentley's Code).

General President, G. M. S. A. U. 1902-1913;
Assistant in Geology, Stanford. 1899-1993;
Field Assistant and Geological Aid, U. S. Geological Survey, 1900-1905;
Paleontologist, U. S. Geological Survey, 1908-1908;
Geologist, U. S. Geological Survey, 1908-1909;
Consulting Petroleum Engineer, U. S. Bureau of Mines, 1912-1921;
Trustee, Stanford University, California, 1915-1917;
Chief, Natural Resources Branch, U. S. Bureau of Internal Revenue, Washington, D. C., 1918-1919;
Chairman, Hoover National Republican Club, 1920;
                           1918-1919;
Chairman, Hoover National Republican Club, 1920;
Chairman, Comm. of Petroleum and Gas, A. I. M. E., 1919-1922;
Chairman, Comm. of Mine Taxation, M. & M. Soc., 1921-1922;
Member, Comm. on Seismology, Carnegie Institution, 1921-1922;
Member, Div. Geology and Geography, Nat. Research Council, 1918-1921;
Consulting Geologist and Petroleum Engineer, 639 So. Spring Street, Los Angeles, California; 120 Broadway, New York, N. Y.
```

*Arrell, Dell Bernie: A. B. Geology, 1910.
Geologist, Caribbean Petroleum Co., Venezuela, 1912–1914;
Petroleum Geologist with Kern County Oil Protective Association, Taft, California, 1914-1916; Petroleum Inspector, State Mining Bureau, San Francisco, California, 1917-1919; Care R. B. Moran, Los Angeles, California.

**Ashley, George Hall: (m) M. E. Cornell, 1899; A. M. Geology, Stanford, 1892;

LEY, GEORGE HALL: (m) M. E. Cornell, 1899; A. M. Geology, Stantord, 1892;
Ph. D., 1894.

1865 Park Road, Northwest, Washingeton, D. C.
Assistant Geologist, Arkansas State Survey, 1891–1893;
Assistant State Geologist, Indiana, 1896–1900;
Professor of Geology and Biology, College of Charleston, South Carolina, 1900–1903;
With Geological Survey, 1900–1905; 1911–1913;
State Geologist, Tennessee, 1905–1911;
Assistant Director, U. S. Geological Survey, 1913—;
State Geologist, Pennsylvania, Harrisburg, Pennsylvania.

*Aubert, Lloyd Lees: 1919-1920; A. B. Geology, 1921. San Mateo, California.

Graduate Student in Geology, Stanford University, 1921.

*Austin, Edward Alonzo: (m) 1901-1903; 1904-1906 Stockton, California. Cable address, Barberton, Ohio.
Engineer, Yukon Gold Co., Dawson, Y. T., Canada, 1906–1912;
Resident Manager, Yukon Gold Co., Flat City, Iditarod District, Alaska, 1912–1916;
Resident Manager, Elkoro Mines Co., Jarbidge, Nevada, 1916–1920;
Assistant Factory Manager, Ohio Insulator Co., Barberton, Ohio, 1920—

Austin, Harry V.: 1918-2908 Tallant Street, Oakland, California. Student in Geology, Stanford University.

AVERY, PAUL W.: A. B. Chemistry, 1905; A. M. Chemistry, 1906.

El Oro, Edo de Mexico, Mexico, Apt. 8.

Assistant in Assaying, Stanford University, 1905-1906;
Assistant Chemist, Homestate Mining Co., Lead, South Dakota, 1906-1908;
Chemist and Assayer, Homestate Slime Plant, Deadwood, South Dakota, 1908-1909;
Chemist and Assayer, Esperanza Mining Co., 1909-1911;
Metallurgist and Assistant Manager, La Leonesa Mine, Ltd., Matagalpa, Nicaragua, 1911-1912;
Metallurgist February, Mining Co., Fl. Co., Maria, 1902-1912. Metallurgical Engineer, Esperanza Mining Co., El Oro, Mexico, 1912-1917;

Consulting Metallurgist, Cia Minera Las Dos Estrellas, Tlapujiahua, Mexico, 1916–1917; Acting Mill and Cyanide Superintendent, Esperanza Mining Co., 1917–1918; General Consulting Work in Gold and Silver Metallurgy for other companies; Mill and Cyanide Superintendent, Cia Minera Las Dos Estrellas, 1918; Consulting Metallurgist, Cia Minera Borda Antigua, 1918, 1919, 1920; Mill and Cyanide Superintendent, Esperanza Mining Co., 1919, 1920, 1921.

**Bahney, Luther William: (m) Ph. G. California 1897; E. M. Metallurgy, Stanford, 1911.

Tord, 1911.

Instructor in Chemistry and Microscopy, Department of Pharmacy, University of California, 1898-1900;

Sampler, Copper King Mining Co., 1900-1901;

Chemist and Chief Assayer, Selby Smelting and Lead Co., 1902-1906.

Manager Xitinga Mines, Mexico, 1906;

Assistant Professor, Metallurgy, Stanford University, 1907-1911;

Assistant Professor Metallurgical Engineering, Yale University, 1911-1917;

Metallurgical Engineer, Scoville Manufacturing Co., Waterbury, Connecticut, 1917.

BAILEY, HARVEY RUSSELL: 1893-94. 58 Lafayette Street, Stamford, Conn.

*BAKER, THOMAS CHILDREY: (m) A. B. Geology and Mining, 1910.
1616 South Vine Street, Hollywood, California.
General Superintendent, Cia Santa Gertrudis, S. A., Cia Beneficiadera de Pachuca, S. A.,
Pachuca, Hidalgo, Mexico, 1910-1920;
Assistant General Manager, The Mexican Corporation, S. A.; Fresnillo, Zacatecas, Mex.

BAPTIE, ALBERT SHELDON: 1919-Bakersfield, California. Student in Geology, Stanford University.

†*BARBER, WILLIAM BURTON: A. B. Geology and Mining, 1902; d. May 4, 1905.

BARNESON, H. J.: 1916-1918.

1003 Higgins Bldg., Los Angeles, California.
Ensign, U. S. N. R., 1918-1919;
General Petroleum Corporation, Los Angeles.

BARR, FARIS CARLIN: 1916. Freeport, Illinois.

BARTELL, MAX JOHN: (m) 1901-1905.
Engineer, Bay Cities Water Co., 1904;
Engineer, Noble Electric Steel Co., Heroult, California, 1909-1910;
Civil Engineer, care City Engineers, San Francisco.
Address: Madrone, California.

BARTON, MILLAR DODGE: 1912-1914. 411 Budlong Ave., Los Angeles, California.

*Bassett, Thomas E.: A. B. Geology, 1921. 332 Channing Avenue, Palo Alto, California.
Student, Geology and Mining, Stanford University, 1913-1915;
Sampler, Calumet and Arizona Mining Co., Warren, Arizona, 1915-1916;
Sampler and Assistant Efficiency Engineer, Copper Queen Consolidated Mining Co.,
Bisbee, Arizona, 1916-1917;
With A. E. F., France, 1917-1919;
Graduate Student, Mining and Metallurgy, 1921—

BAUSTISTA, ELSISE M.: A. B. Ateno de Manila, 1919; Graduate Student, 1919-20. clo Bureau Insular Affairs, Washington, D. C.

BAYLY, GEORGE HAROLD: 1909-1912. 3131 So. Figueroa St., Los Angeles, California.

*Beal, Carl Hugh: (m) A. B. Geology, 1912, E. M., 1920. 25 Hilltop Road, San Mateo, California. Field Geologist, Kern Trading and Oil Co., Coalinga, 1913; Geologist with Harry Johnson, Los Angeles, 1913–1914; Assistant, Department of Geology and Mining, Stanford, 1914–1915;

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Oil and Gas Inspector, Five Civilized Tribes, Muskogee, Oklahoma, 1915-1916;
Petroleum Technologist, U. S. Bureau of Mines, Washington, D. C., 1916-1918;
Special Agent on Valuation of Oil Properties, Bureau of Internal Revenue, Treasury
Department, Washington, D. C., 1918-1919;
Petroleum Technologist, U. S. Bureau of Mines, 506 Custom House, San Francisco, California, March to August, 1919;
Assistant Professor, Petroleum Engineering, Stanford University, California, September, 1919;
Consulting Geologist and Engineer, 607 First National Bank Building, San Francisco.
   BECK, ALBERT CONRAD: 1915-1917.
                     Los Angeles, California.
In U. S. Service, 1918-1919.
   BECK, PAUL WARD, JR.: 1915.
                              Manila, P. I.
*BECKWITH, HENRY TRUMAN: A. B. Geology and Mining, 1908.
                              P. O. Box 1052, Bartlesville, Okla.
                    Geologist;
Field Engineer, Commonwealth Exploration Co., Philadelphia, Pennsylvania, 1908-1912;
Assistant Geologist, Stanford University, California, 1912-1913;
Field Geologist, Texas, 1913-1914;
Assistant Engineer, Yukon Gold Co., Barkerville, British Columbia, 1915;
Chief Geologist, Indian Territory Illuminating Oil Co., Bartlesville, Oklahoma, Box 1052,
Bartlesville, Oklahoma;
Captain, Headquarters Company 312th Engineers, A. E. F., 1918-1919;
Chief Engineer, Indian Territory Illuminating Oil Co., Bartlesville, Oklahoma, 1919-1921.
*BECKWITH, PALMER: 1915-1918.
1219 West Thirty-Sixth Place, Los Angeles, California.
Lieutenant, U. S. Engineers, 1919.
*Beebe, Henry Clare: 1912-1916.
                     Ashland, Oregon.
Field Oil Geologist and Engineer, Box 578, Bartlesville, Oklahoma, 1916;
Geologist and Engineer in charge Cornpanhia de Pesquisas, Mineras de Angola, Africa.
New York address, 60 Liberty Street, c/o C. W. Washburne.
*Beeson, Joseph Josiah: (m) A. B. Geology, 1920.
                     Los Angeles, California.
President, G. & M. Society, 1915-1916;
Member A. I. M. E.;
Sampler, Utah Copper Co., Bingham Canyon, Utah, 1912;
Churndrill Work, Utah Copper Co., 1914;
Geologist, Emma Consolidated Mines Co., Alta, Utah, 1916-1917;
Master Engineer, Senior Grade, 318th Engineers, A. E. F., France, 1918-1919;
Consulting Mining Geologist, Scott Building, Salt Lake City, Utah.
*Bell, Harry Wesley: A. B. Geology and Mining, 1906.
                    , HARRY WESLEY: A. B. Geology and Mining, 1906.

Healdsburg, California.
Assayer, Valcalda Mining Co., Silver Peak, Nevada;
Assayer, Electrician, and Refiner, Nevada Reduction Co.;
Millman, Goldfield Consolidated Mill Co.;
Engineer, Esperanza Oil Co., Coalinga, 1912–1913;
Engineer, General Petroleum Co., Coalinga, 1913—
Inspector and Petroleum Engineer in Dept. Petroleum and Gas of State Mining Bureau at Coalinga and Santa Maria, 1917–1918;
Deputy State Oil and Gas Supervisor, Santa Maria, 1918–1920;
Petroleum Engineer in charge of Dallas Office, U. S. Bureau of Mines, 1921—
*Bell, Henry Herman: A. B. Geology and Mining, 1900.
                               708 J Street, Eureka, California.
   Bell, John Henry: 1904-1906; 1907-1909.
                     Shingle, Eldorado County, Calif.
Engineer, Lower Mammoth Mining Co., Mammoth, Utah, 1909-1910;
Estimateman and Draughtsman, Southern Pacific Railroad Co., 1910-1912;
Engineer, Plymouth Consolidated Gold Mines, Ltd., Plymouth, California, 1912-1913;
Superintendent, Treasure Mining Co., Amador City, California, 1915;
Pacific Tungsten Co., Inc., Mill City, Nevada, 1918-1919;
Engineer, W. J. Loring, Nevada Properties, 1919-1920;
Mine Manager, El Dorado Lime and Minerals Co., Shingle, California, 1920—
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BENTLEY, HOWARD B.: 1917-1918.

704 Waverley Street, Palo Alto, California.
Lieutenant, Company F, 62d Infantry, U. S. A., Camp Lee, Virginia, 1919—Field Geologist, Pacific Oil Co., 1920—

Bernt, Daniel Martin, Jr.: 1922— Manteca, California. Student in Geology, Stanford University, 1922.

BETTANIER, LEO CLAUDY: 1915-1917.
Pasadena, California.
Lieutenant, Aviation, U. S. A., 1918-1919.

*BISHOP, WILLIAM B.: 1920— Colorado Springs, Colorado-Student in Geology, Stanford University.

**Blackwelder, Eliot: (m) A.B. Geology, 1901; Ph.D. University of Chicago, 1914.

740 Olive Street, Denver, Colorado.

Assistant Geologist, U. S. Geological Survey, 1906–1909;
Carnegie Institution of Washington, D. C., 1903–1905;
Geologist, U. S. Geological Survey, 1909–1918;
Professor, University of Wisconsin, 1905–1916;
Professor, University of Illinois, 1916–1919.
California State Petroleum Committee, 1917;
Acting Professor, Stanford University, 1919–1921;
Chief Geologist, Argus Oil Co., Denver, Colorado;
Lecturer, Harvard University, 1921–1922;
Professor, Stanford University, 1922.

BLAKE, WILLIAM HORTON: Geology and Mining, 1901-1904. R. F. D. No. 2, Orland, Illinois.

BOEZINGER, HUMBERT ARTHUR: 1917— Palo Alto, California. Student in Geology, Stanford University.

Bohle, Shanker Jairam: 1920— Hydrabad, India. Care Humble Oil Co., Cisco, Texas.

Bongard, John Francis: 1914-1915. Angels Camp, California.

BONNETT, WILLIAM HENRY: 1913-1916.
1418 South Lime Street, Riverside, California.

Bontz, Conrad Kauffman: 1913—
327 Everett Ave., Palo Alto, California.
United States Navy, 1918;
Geological Department, Shell Co. of California, 1917-1918;
Field Geologist, Southern Pacific Railroad Co., 1919;
Field Geologist, Sinclair Exploration Co., 120 Broadway, New York City, 1920-1921;
Geologist, Compania de Petroteo de Timor, Dilly, Timor, 1921;
Geological Exploration in South America, 1922—

Boswell, Paul Frederick: A. B. University of South Carolina, 1919. Hartsville, South Carolina. Graduate Student, Mining and Metallurgy, Stanford University, 1921-1922; Assistant in Metallurgy, Stanford University, 1921-1922.

BOTHWELL, FLOYD: 1916-1919.

Salt Lake City, Utah.

Mining Engineer.

BOUDREAUX, RAY H.: 1919— Klamath Falls, Oregon-Student in Geology, Stanford University.

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*BOULWARE, GEORGE LYNN. A. B. Geology, 1920.

170 Bryant Street, Palo Alto, California.

Reserve Military Aviator, U. S. Army, 1918;
Assistant Geologist, Pan-American Petroleum Co., Fall of 1919;
Petroleum Geologist and Engineer, Palo Alto, California, 1921—
Petroleum Geologist, Standard Oil Co., 634 Higgins Building, Los Angeles.
     *Boundey, Edwin James: (m) A. B. Geology, 1911.
194 Moorpark Avenue, San Jose, California.
Fruit Grower, San Jose, 1911-1913.
      *Bowes, Glenn Howard: 1915-1918; A. B. Geology, 1920.
                              Monrovia, California.
United States Naval Reserve, 1918-1919.
         Bowles, Thomas Kirby: 1919—
Elgin, Illinois.
Student in Geology, Stanford University.
     *Boyd, Harold Edward: A. B. Geology and Mining, 1912.
505 South Second Street, San Jose, California.
Geologist with Caribbean Petroleum Co., Venezuela, 1912–1914, inclusive;
Geologist with J. E. Thomas, Tulsa, Oklahoma, 1915–1916;
Geologist with the Sinclair Oil and Gas Co., Tulsa, Oklahoma, 1917;
Geologist with J. R. Pemberton, Louisville, Kentucky, 1917;
Geologist with Pomeroy & Hamilton, Tulsa, Oklahoma, 1918;
Joined Aviation Section, U. S. A., June 1, 1918;
Geologist with Henry L. Doherty & Co., 60 Wall Street, New York, 1919–1922.
         BOYLE, HARRY: 1899-1905.
                                          Roslyn, Washington.
                              Mining Engineer, Northwestern Improvement Co.
         Bradley, Frank Foster: (m) 1898-1901.
Saspamco, Texas.
                              Farmer.
          Bradley, Oliver Uriel: A. B. Geology and Mining, 1904.
                              410 Federal Bldg., Muskogee, Oklahoma.

Engineer and Assistant Manager, Ohio-Tonopah Mining Co.;
Assistant Superintendent and Engineer, Ruth Pierce Mining Co., Mariposa County, 1907-1909;
Civil and Mining Engineering work, 1910-1911;
Bureau of Mines, Pittsburg, Pennsylvania;
Mining Engineer, Inspection Work; Northwestern United States, 1912;
U. S. Oil Inspector, Department of Interior, Indian Agency, Muskogee, Oklahoma.
      *Braly, Norman Blythe: A. B. Geology and Mining, 1905.
                              Residence: Mueller Apts., Butte, Montana.
General Manager, North Butte Mining Co., Butte, Montana.
†**Branner, John Casper: (m) B. S. Cornell, 1882; Ph. D. Indiana, 1885; LL. D.
Arkansas, 1897; California, 1915; D. Sc. Chicago, 1916.

13 Alvarado Row, Stanford University, California.
Assistant Geologist, Imperial Geological Survey of Brazil, 1875–1878;
Special Botanist in South America, 1880–1881;
Special Agent of the U. S. Department of Agriculture, 1882–1883;
Topographic Geologist of the Geological Survey of Pennsylvania, 1883–1885;
Professor of Geology, Indiana University, 1885–1891;
Fellow of the Geological Society of London since 1898;
Member of the Societe Geologique de France since 1898;
State Geologist of Arkansas, 1887–1892;
President, Geological Society of America, 1904; President, Seismological Society of America, 1910–1912;
Awarded Gold Medal at the Louisiana Purchase Exposition for Geological Reports on Arkansas, 1905;
Member California Earthquake Investigation Commission, 1906–1907;
Special Assistant, Geological Survey of Brazil, 1907;
Vice-President and Professor of Geology at Stanford University, 1891–1915;
President, Stanford University, 1913–1916;
Member of the Committee to report on the landslides on the Panama Canal, 1915;
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President Emeritus, Stanford University, since 1917;
Awarded the Hayden Gold Medal of the Academy of Natural Sciences of Philadelphia, for Valuable Contributions to Geology;
Author of more than three hundred books and pamphlets on Geology, etc.;
President of the Pacific Division of the American Association for the Advancement of Science, 1916—
Member of the National Academy of Sciences;
Author of the Geologic Map of Brazil, 1919.

BRANNER, JOHN KENNEDY: 1905-1908; B. of Architecture, Columbia, 1912.
Office: 251 Kearny Street, San Francisco, California.
Architect.
Practicing Architect since 1915.
University of Lynn, 1918.

Bremner, Olney Edwin: (m) A. B. Zoology, 1903. 1015 Ripley St., Santa Rosa.

†*Briggs, Otis Emmons: A. B. Geology, 1917; A. M. Geology, 1920.
Died—February 23, 1921.

BROKENSHIRE, MARK GUY: 1914-1917.
79 Magnolia Avenue, San Jose, California.
With U. S. Army in France, 1918-1919;
Mining in Shasta County, California.

BROOKE, JAMES KENNETH: 1920—
Portland, Oregon.
Student in Geology, Stanford University.

BROTHERTON, THEODORE WILLARD: 1899-1903.

Cor. Vermont and Burrow Streets, Los Angeles, California.

*Brown, Harold Austin: 1916-1917. A. B. Geology, 1921.

Los Angeles, California.

Assistant Resident Geologist, Pacific Oil Co., Kerto, Kern Co., California, 1921—

*Browning, Herbert Edward: 1921— Palo Alto, California. Student in Geology, Stanford University.

BRUNTON, JOHN: 1895-1897.

Care of T. S. Edwards, American Express Co., 2nd and Market Streets,
San Francisco, California.

*BRYAN, BARNABAS: A. B. Geology and Mining, 1909.
Anacostia, District of Columbia.
Mining Engineer, Podorosa Mining Co., Callahuasi, Chile, 1909-1910;
Geologist, Caribbean Petroleum Co., 1912-1915;
Geologist for A. C. Bunage, 1915-1920;
Associated with Ralph Arnold, 42 Broadway, New York City.

BRYAN, DARWIN: 1916-1919. Suisun, California.

*Buck, Rufus: A. B. Geology and Mining, 1895.
349 E. 51st Street, Seattle, Washington.
Chief Engineer, Yukon Construction Co., 1905;
Superintendent Construction, Seattle Lighting Plant, 1907;
Assistant Engineer, Cedar River Water Supply Service, Seattle, Washington, 1908;
Mining Engineer, Placer Mining Examinations.

BUCKINGHAM, WINTHOP: A. B. Yale, 1920.
Pasadena, California.
Graduate Student in Geology, Stanford University, 1922.

*Bundy, Douglas: 1919-1922; A. B. Geology, 1922. 915 South Carondelet Street, Los Angeles, California. BUNDY, ROBERT GILLIS: 1919-915 South Carondelet Street, Los Angeles, California-Student in Geology, Stanford University.

BUNKER, C. E.: M. E., 1896.

Apartado 48, Tampico, Mexico.

Superintendent Keystone Consol Mine, 1902;

Manager, Babilonia Mine, La Libertad, Nicaragua, 1914-1915;

Manager, Bunker Hill Mine, Amador City, 1916-1920;

With Compania Mexicana de Combustible, S. A., Tampico, Mexico.

*Burbridge, Charles Clair: 1917—

Tracy, California. Student in Geology, Stanford University.

*Burcham, William David: (m) 1905-1910.

M.Kinney Springs, Texas.

M.Kinney Springs, Texas.

Miner, Alaska-Treadwell Gold Mining Co., \$1908-1909;

Miner Bunker Hill and Sullivan and Morning Mines, 1909;

Miner and Millmann, Pittsburg Silver Peak Mining Co., \$1910-1911;

Engineer, 1911-1913; Millman and Mill Superintendent, 1913-1915; Presidio Mining Co.,

Shafter, Texas;

Manager, Study Butte Mining Co., Study Butte, Texas, 1915-1919;

President, Mariscal Mining Co., 1919—

*Burgher, Charles Clifford: 1920—

Rupert, Idaho. Student in Geology, Stanford University.

*Burgren, Arthur William: (m) A. B. Geology and Mining, 1910.

Care A. B. Nauert, 4900 Cimarron Street, Los Angeles, California.

Chemist and Assayer, Anglo-Continental Gold Syndicate, Ltd., 1911–1912; Minillas, Zac.,

Mexico; Mexico; 1912-1914; 1916-1917;
Mine Foreman, Dolores Mines, American Smelting and Refining Co., 1912-1914; 1916-1917;
Mine Foreman, Dolores Mines, American Smelting and Refining Co., Matehuala, S. L. P., Mexico, 1917-1918;
Assistant Superintendent Dolores Mines, American Smelting and Refining Co., Matehuala, S. L. P., Mexico, 1918— 'Present Address-Matchuala, San Luis Potosi, Mexico.

Burks, Jesse: 1917-1918.

807 Superba Avenue, Venice, California.

BURMISTER, HOWARD COLES: 1897-1899. 1435 16th Street, Denver, Colorado.

*Burrell, Logan: 1906-1912.

505 East Twentieth Street, North, Portland, Oregon.
With Pacific Gas and Electric Co., San Francisco, 1912-1913;
With London and Lancashire Guaranty and Accident Co., 1913-1914;
Millman, La Leonesa Mill, Matagalpa, Nicaragua, 1914-1915;
With H. L. Huston, 634 Mills Building, San Francisco, California;
With Shell Co., San Francisco, California.

†Burris, Arthur Frederick: 1910-1912. Died August, 1912.

*Burtt, Payson Dodge: A. B. Geology and Mining, 1909.
Mining Engineer, 729 Mills Building, San Francisco, California;
Superintendent, Illinois-Pacific Glass Co., San Francisco, California.

*Butterfield, Irvis W.: A. B. Geology and Mining, 1918.

835 Middlefield Road, Palo Alto, California.

Ensign, U. S. N., 1918-1919;
Field Geologist, Southern Pacific Co., August 1, 1919-January 1, 1921;
Assistant Geologist, Pacific Oil (o. (for Associated Oil Co.), Laramie, Wyoming, from January 1, 1921-January 1, 1921-

BYXBEE, JOHN FLETCHER: 1897-1899. Palo Alto, California. City Engineer, Palo Alto, California. *CADLE, AUSTIN: 1917-1922; A. B. Geology, 1922. 1513 N Street, Sacramento, California.

*CALDWELL, DAVID LYMAN: 1916-1922; A. B. Geology, 1921. San Mateo California. Associated Oil Co., Fellows, California.

CAMERON, FRANCIS: 1920—
Salt Lake City, Utah.
Student in Geology, Stanford University.

CAMERON, HARRY FRANK: 1897-1900.

Third Engineer, Schofield Barracks, Honolulu, Territory of Hawaii. Spanish-American War, Private, Co. D., 1st Washington Regiment; World War, Captain to Lieutenant-Colonei, Engineers, U. S. A.; At present, Major, Corps of Engineers, U. S. A.; Engineering in Alaska, Hawaii, Philippines, China. Japan, 1900-1907; Chief Engineer of Oriente Province, Cuba, 1907-1908; Division Engineer, Bureau of Public Works, Manila, P. I., 1909 12. Aigdouar & Suler, Philippine Islands, 1912 1917.
U. S. Army, 1917.

*CAMPBELL, HARRY ARCHIBALD: (m) Geology, 1913-1918.

Santa Cruz. California

Geologist, Imperial Oil Co., Edmonton, Alberta, Canada, 1919-1920;
Petroleum Geologist with Carl H. Beal, 1920607 First National Bank Building, San Francisco, California.

CAMPBELL, H. F.: 1917-1920.
Modesto, California.
U. S. N. R., 1918.

CARBONELL, FRANCISCO K.: 1917—
Baconotau Union, P. I.,
Student in Geology, Stanford University.

CARD, JOHN LOCKHART, JR.: 1914-1918.
Palo Alto, California.

*Carey, Everett Pascoe: (m) A. B. Mt. Allison University, New Brunswick, 1892;
A. B. Harvard, 1893; B. S. Harvard, 1894; Graduate, Geology Stanford, 1901-1902.

Mariposa, California.
Professor of Geology, University of Pacific, 1903-1904;
Professor of Physiography, San Jose High School, 1904;
Professor of Physiography, Mission High School, 1908-1910;
Professor of Physiography, Lowell High School, San Francisco, California, 1910-1912;
Professor of Physiography, Polytechnic High School, California, 1912—
Farming in Merced County and Mariposa.

*CARLE, NATHANIEL ALLEN: (m) A. B. Mechanical Engineering, 1898. Seattle, Wash.
Engineer, Westinghouse, Church, Kerr & Co., New York, 1900-1906:

Seattle, Wash.

Engineer, Westinghouse, Church, Kerr & Co., New York, 1900–1906:

Manager and Vice-President, Northern Colorado Power Co., 1906–1908;

Mechanical and Electrical Engineer, Seattle, Washington, 1909;

Public Utilities Corporation, Jersey City, New Jersey.

*CARLTON, DAVE PIERCE: A. B. Geology, 1915.
Riverside, California.
Assistant, Mineralogy, Stanford University, 1914–1915;
Standard Oil Co., California, 1915–1916;
Nevada Douglas Consolidated Copper Co., 1917;
U. S. Army, 1918–1919;
Humble Oil and Refining Co.. 1919–1920–1921;
Box 400, Cisco, Texas.

*CARREY, ALBERT ADOLF: 1918— Gilroy, California. Student in Geology, Stanford University. *Carroll, Daniel Brendan: A B. Geology, 1920.
Arncliffe, Sydney, New South Wales, Australia.
Lieutenant, 364th Infantry, U. S. A., France, 1917-1919;
Geologist, Midwest Refining Co., Denver, Colorado, 1920;
Geologist, Standard Oil Co., San Francisco, California;
Geologist, The California Co., Billings, Montana, 1922.

*Carson, Carlton M.: 1917—
Palo Alto, California.
Student in Geology, Stanford University.

*Cashbaugh, William Augustus: A. B. Geology and Mining, 1910. Bishop, Inyo County, California.

CASSEL, CHESTER: 1921—
3437 Maceo St., Los Angeles, California.
Student in Geology, Stanford University, California.

*Castleman, Gordon L.: 1917— Salt Lake City, Utah. Student in Geology, Stanford University.

CAVANAUGH, WILLIAM JOSEPH: 1920— San Mateo, Calif. Student in Geology, Stanford University.

CAVENDER, ALEXANDER C.:
College Terrace, Mayfield, California.
Mining Engineer;
Student in Geology, Stanford University, 1919-1920;
Present address, Box 329, El Dorado, Arkansas, 1921.

*Chamberlin, Allen Mortimer: A. B. Geology and Mining; 1907.

San Jose, California. Cable address, Juneau, Alaska.

Engineer, Trinity Copper Co., California, 1907;
Foreman, Duplex Cynaide Plant, Nevada, 1907;
Mill Foreman, Sagamore Hill Mining Co., California, 1908;
Chief Engineer, Poderosa Mining Co., I.td., 1909–1910;
With Ferro-Carril de Antofagasta, Oxuro, Bolivia, 1910–1913;
Chief Engineer, Perseverance Mine, Alaska Gold Mines Co., Thane, Alaska, 1914—

CHAMPLIN, GEORGE BEECHER: 1891-1893. Red Bluff, California.

*Chandler, Clayton Isaac: A. B. Geology and Mining, 1908.
Box 1302 Fresno, California.
Farmer, Fresno, California.

*Chandler, Henry Armin: 1916-1917; 1920-1921; A. B. Geology, 1921. San Diego, California. In U. S. Service, 1918-1919.

*CHANDLER, HOWARD HIRAM: (m) A. B. Geology and Mining, 1906.

Box 131, Exeter, California.

Cyanide Manager and Assayer, King of Arizona Mining Co., 1906-1908; With Black Mountain Mining Co., Sonora, Mexico, 1907; Fruitgrower, Exeter, California.

*Chapin, Harold Addison: (m) 1912-1915.
716 Emory Street, San Jose, California.
Treadwell Cyanide Plant, Treadwell, Alaska;
Foreman, Calmich Mine, Deadwood, California;
Head Sampler, Arizona Copper Co., Metcalf, Arizona, 1916.

*Chapin, Theodore: (m) B. S. Occidental College, 1908; A. M. Geology, Stanford, 1913.

Geologist, U. S. Geological Survey, 1910-1920;
Chief Geologist for H. L. Doherty & Co., Apartado 285, Tampico, Mexico.

CHAPMAN, CHARLES CARROLL: 815 9th Street, Marysville, California.

CHAPPELL, CLAUDE CARL: 1920. Delano, California.

CHARLOT, LEON ELLIOT: 1919-1920. Alameda, California.

CHASE, ELMER ELLSWORTH, JR.: 1907-1910. 43 So. 14th St., San Jose, California.

*Cheda, Gilbert E.: A. B. Geology and Mining, 1911.

San Luis Obispo, California.

San Luis Obispo, California.

Engineer, Assayer, Millman, Mine Supt., etc., Babilonia Mines, Ltd., La Libertad, Nicaragua, Central America, 1911-1916;
Superintendent, Keltz Mine, Soulsbyville, Tuolumne County, California, 1917-1918;
Geologist, Carter Oil Co., Wyoming, 1919;
Geologist and Field Supt., Empire Gas and Fuel Co., Tampico, Mexico, 1919-1920;
General Manager, Compania Mexicana de Combustible, S. A., Apartado 48, Tampico, Mexico.

†*CHEDA, HENRY PROSPER: A. B. Geology and Mining, 1912. Died, April 7, 1915.

CHRISTENSEN, ERNEST STEPHEN: 1914-1917. Giant, California. Chemist, Giant Powder Plant, Giant, California.

*Christy, Fred Chase: (m) A. B. Geology and Mining, 1906. 914 North Second Street, Phoenix, Arizona. Teller, Valley Bank, Phoenix, Arizona.

CHURCH, CAMPBELL: 1897-1899; 1901-1903. Eugene, Oregon. Assistant Superintendent of placer mine, Nome, Alaska, 1899-1901; Superintendent of zinc mine, Arkansas, 1903-1905; Mining Engineer, Joplin, Missouri, 1905-1920; Consulting Engineer, 1920.

*CLARK, DOUGLAS: A. B. Geology and Mining, 1914.

Stanford University, California.

Millman, Ontario Mining Co., Stewart, Idaho, 1914–1915;
Metallurgist, with Charles Butters, Oakland, California, 1915;
Cyanide Foreman, Seoul Mining Co., Korea, 1917–1918;
Metallurgist with Charles Butters, Oakland, California, 1919–1920;
Engineer for W. R. Grace & Co., Chile, 1920–1921.

CLARK, HENRY R.: 1913-1918; A. B. Geology, 1921. Los Angeles, California.

†CLARK, JAMES P., JR.: 1913-1915.
Little Rock, Arkansas.
Capt. U. S. A.; died at Camp Brown, Texas, October 28, 1917.

**CLARK, JOHN DUSTIN: B. S., M. S., New Hampshire College; Ph. D. Chemistry.

Albuquerque, N. M. Professor of Chemistry, University of New Mexico.

*CLARK, WILLIAM OTTERBEIN: A. B. Union Christian College, 1899; A. B. Geology, Stanford, 1906; A. M. Geology, Stanford, 1915.

771 Hamilton Avenue, Palo Alto, California.
Acting Professor of Geology, State College of Washington, 1906–1907;
Teacher of Geology and Physiography, Milwaukee Normal School, 1907–1912;
Hydrographic Engineer with U. S. Geological Survey, 1912–1921;
Geologist with C. Brewer Co., Ltd., Honolulu, Hawaii, 1922—

*Classen, Willard John: 1917—; A. B. Geology, 1921. Box 163, R. F. D., Menlo Park, California. Field Geologist, Associated Oil Co., summer 1920; Paleontologist, Stanford Geological Survey, 1921; Assistant Geologist, Standard Oil Co., 1922—

CLEVELAND, NEWTON.
2512 Cedar Street, Berkeley, California.
General Manager, Yuba Mfg. Co., San Francisco, California.

**Clevenger, Galen Howell: (m) B. S. South Dakota School of Mines, 1901; A. M. Columbia, 1903; Met. E. Stanford, 1906; E. M. South Dakota School of Mines, 1908. Superintendent and Proprietor of Plant, Operating Cyanide Process, Rapid City, South Dakota, 1899-1901; Assayer and Chemist, Dakota Mining and Milling Co., Deadwood, South Dakota, 1901-1902; Assayer and Chemist, Dakota Mining and Milling Co., Deadwood, South Dakota, 1901-1902;
Graduate Student, Columbia University, New York, 1902-1903;
Research Metallurgist, National Smelting Co., Rapid City;
Superintendent, Gold Reduction Mill of the Horseshoe Mining Co., Terry, South Dakota, 1904-1905;
Instructor in Metallurgy; Graduate Student, Stanford University, 1905-1906;
Special Assistant, U. S. Geological Survey, in charge of Electric Smelting Experiments, Portland, Oregon, 1904-1905;
Consulting Metallurgist for companies operating in United States, Mexico, and Central America, 1906-1909.
Assistant Professor of Metallurgy, Stanford University, 1909-1910;
Associate Professor of Metallurgy, Stanford University, 1910-1917;
Research Professor of Metallurgy, Stanford University, 1917-1918;
Consulting Metallurgist, Nipissing Mining Co., Cobalt, Ontario, Canada, 1911;
Consulting Metallurgist, Portland Gold Mining Co., Colorado Springs, Colorado, 1914;
Member Committee, Metallurgist, Exhibits, P. P. I. E., San Francisco, California, 1915;
Consulting Metallurgist, U. S. Bureau of Mines, 1918-1917;
Metallurgist, U. S. Bureau of Mines, 1918-1917;
Wice-Chairman, Division of Engineering, National Research Council, 1919 to date;
Consulting Metallurgist and Director of Research, U. S. Smelting, Refining & Mining Co., 1920 to date;
Consulting Metallurgist, 29 W. 39th Street, New York City.

Consulting Metallurgist, 29 W. 39th Street, New York City.

*Clowe, Charles Edward: A. B. Geology and Mining, 1914. Woodland, California.

Petroleum Geologist, Care Montebello Oil Co., Fillmore, California, 1914; With Carter Oil Co., 301 National Bank Building, Tulsa, Oklahoma; First Lieutenant, Company E, 111th Regiment, Engineers, U. S. N. G., 1917.

CLUTE, WALKER S.: A. B. Geology and Mining, 1915.

157 So. Wilton Drive, Los Angeles, California.

Deputy Oil Inspector City of Los Angeles, 1915;
Smith, Emory & Co., Chemical Engineers, Los Angeles, California, and Lakeside, Neb., 1916-1917;
Geologist and Engineer, California Petroleum Corporation, Pan-American Petroleum Co., Montebello, California, 1917;
Lieutenant Pilot, R. M. A. Air Service, U. S. A., 1918,
Consulting Geologist, Associate with Harry R. Johnson, 925 Union Oil Building, Los Angeles, California, 1919;
Geologist, Granada Oil Corporation, Cartagena, Colombia, S. A., 1919-1920;
Oil and Gas Valuation Engineer, U. S. Treasury Department, Washington, D. C., 1921—

COATES, ELDRED ARTHUR: 1917-1921; A. B. Geology, 1921. 1821 Pleasant Valley Avenue, Oakland, California.

COBB, WILLIAM LOUIS: 1895-1897. Sausalito, California. Member A. I. M. E. Mining Engineer.

*Code, Thomas Kimball: (m) A. B. Geology and Mining, 1896.
Office, 519 California Street, San Francisco; Residence, 2885 Union

Street, San Francisco, California.

Assayer, Mucker, Timberman, Millman, Utica Mine;
Superintendent, Manzanita Mine, Ellen Winton Mine, Gold Zone Mining Co., Arizona;
Empire Mining Co., Cumberland Mining Co., Nevada; Ocean Star Mine;

Consulting Engineer, Dutton Copper Co., Alaska; Consulting Engineer, Star Peak Mine, Nevada; Manager, Mayflower Mining Co., Nevada; Consulting Engineer, Pioneer Gold Mines Co., California; Consulting Engineer, Folsom Mining Co.; General Mining and Consulting Work.

*Coe, Harrison Streeter: (m) A. B. Geology and Mining, 1903.

381 Lincoln Avenue, Palo Alto, California.

381 Lincoln Avenue, Palo Alto, California.

Assistant Mine Examiner, Anglo-Continental Gold Syndicate, Ltd., in Mexico, 1906-1909;

Amparo Mine, Jalisco, Mexico, 1909-1910;

Manager Babilonia Gold Mines, Ltd., Nicaragua, 1911-1912;

Manager La Loenosa Mine, Matagalpa. Nicaragua, 1913-1916;

Research Engineer, Dorr Co., 1915-1917;

Mining Engineer, Mound City, Kansas, 1919—

*Cohn, Dave Solis: 1918-1922; A. B. Geology, 1922. 1323 West Seventh Street, Spokane, Washington.

*Cole, Amos Newton: (m) 1904-1906; Chemistry, 1906-1909.

Dubois, Pennsylvania.
Engineering Department, Shawmut Mining Co., St. Mary's, Pennsylvania, 1910-1911; Engineering Department, Allegheny River Mining Co., Kitanning, Pennsylvania. 1911-1913; With Pennsylvania.

With Penn Coal Co., Clarion, Pennsylvania, as Mining Engineer, Superintendent and General Superintendent of Mines, 1913–1916;
With H. Koppers Co., Pittsburgh, Pennsylvania, as Engineer engaged in operation of By-Product Coke Plants, 1916–1918;
Member A. I. M. E.
Superintendent Publish Mining Co. Dubois Pa. 1920–1921

Member A. 1. M. E. Superintendent, Dubois Mining Co., Dubois, Pa., 1920–1921. Fuel Engineer, Davis Coal and Coke Co., Baltimore, Maryland, 1921—

COLE, FRANK LORENZO: 1891-1893.

98 Bulvarny Prospect. Harbin, Manchuria, China.

Mining Engineer. Mining Engineer, American Russian Trading Co., Harbin, Manchuria, China.

*Coleman, Alfred Henry: (m) 1913—

Morenci, Arizona.

Assistant Geologist for Phelps-Dodge Corporation, Morenci Branch, Arizona, 1919; Shift Boss, Phelps-Dodge Corporation, Morenci Branch, Arizona, 1919–1920; Geologist, with Cia. Real del Monte y Pachuca, Hidalgo, Mexico, 1921—

COLEMAN, JOHN CRISP: 1896-1897. Katonah, New York.

COLEMAN, WILLIAM PRESCOTT: 1914-1915. Los Angeles, California.

Collins, Burt Harrison: 1897-1898; 1899-1900. Present address. Bradford, Pa. Assistant Geologist, Branner-Agassiz Expedition to Brazil, 1899.

Collins, George Ainslie: 1920-1922; A. B. Geology, 1922. Portland, Oregon. Graduate Student in Geology, Stanford University, 1922.

COLLINS, RAY MERRILL: 1897-1898. Bradford, Pennsylvania.

Assistant Geologist, Branner-Agassiz Expedition to Brazil, 1899.

Collins, Wallace Chase: 1908-1910. Mill Valley, California.

COLLIS, WILLIAM EDWARD, JR.: 1907-1909. Chester, New Jersey.

*COLLOM, ROY EDWARD: A. B. Geology and Mining, 1906. 920 Fresno Avenue, Berkeley, California. Mining, Surveying, Wonder, Nevada, 1907-1908;

Vanadium Alloys Co., Newmire, Colorado, 1909;
Petroleum Engineer, Coalinga, California, 1910-1914;
Petroleum Accountant, Producers' Transportation Co., San Luis Obispo, Calif., 1914;
Petroleum Engineer, California State Mining Bureau, Taft, California, 1915;
Deputy State Oil and Gas Supervisor, California State Mining Bureau, Santa Maria,
California, 1916-1918;
Chief Deputy State Oil and Gas Supervisor, California State Mining Bureau, San
Francisco, California, 1919;
Petroleum Technologist, U. S. Bureau of Mines, San Francisco, 1920;
State Oil and Gas Supervisor, California State Mining Bureau, San Francisco, California, 1921-

*Comstock, William: 1919— Stanford University, California. Student in Geology.

†CONNELLY, CHARLES H.: 1919— St. Thomas, Nevada. Drowned in Colorado River, June, 1921.

†Cooper, W. G.: A. B. Geology, 1914. Died Sept. 21, 1920; Mexico City, Mexico.

COPE, ELMO CLIFTON: 1904-1907.
637 10th Avenue, San Francisco, California.
*COPLEY, RALPH DAVID: 1916-1921: A. B. Geology, 1921.

*Copley, Ralph David: 1916-1921; A. B. Geology, 1921.
Aukum. El Dorado County, California.
Geologist, Pacific Gas and Electric Co., c/o Land and Tax Department, San Francisco.
Company B, 27th (Mining) Engineers, A. E. F., 1917-1919.

*CORBET, EDWARD BURKE: A. B. Geology and Mining, 1913.

1201 First National Bank Building, San Francisco, California.
President, Stanford Section, G. M. S. A. U., 1912-1913;
Mining Engineer;
Superintendent Salt Lake Copper Co., Nevada, 1917;
Superintendent, Santa Fe Gold and Copper Mining Co., San Pedro, New Mexico, 1918;
Manager, Salt Lake Copper Co., Salt Lake City, Utah, 1918-1919, 827 McIntyre Bldg.;
Manager, Rosemont Development Co., Vail, Arizona, 1920;
Manager, Estate of Leonard Lewisohn Coal Mine, Stanley, New Mexico, 1920.
With Lewisohn Brothers, New York, 1921—;
Address, 633 Judge Building, Salt Lake City, Utah.

*CORBY, GRANT WHITE: 1918-1922; A. B. Geology, 1922. Los Angeles, California. Graduate Student in Geology, Stanford University, 1922—

*Crandall, Burton Woodford: (m) A. B. Chemistry, 1907.
335 Lowell Ave., Palo Alto, California.
Assistant in Assaying, Stanford University, 1906–1907;
Chemist, Peyton Chemical Works, 1907–1908;
In business, Crandall's Kodaks, Developing and Printing, Map Copying, 124 University Avenue, Palo Alto, California.

†Crandall, Darrell: 1909-1912. Died, March 31, 1913.

*Crandall, Hector: A. B. Chemistry, 1913; A. M. Geology, 1915.

Palo Alto, California.

Mine Sampler and Surveyor, La Leonesa Mine, Matagalpa, Nicaragua, 1913-1914;
Geologist for Wichita Natural Gas Co., Mid-Continental Oil Fields, 1915;
Geologist for Carter Oil Co., Mid-Continental Oil Fields, 1916;
Geologist and Independent Oil Operator, 1916-1917;
Geologist in Kentucky-Tennessee Oil Fields, 1917;
Second Lieutenant, Engineers, U. S. A., Second Battalion, 29th Engineers, A. E. F. 1918;
Petroleum Geologist with Pomeroy & Hamilton, 1919;
Member of the firm of Crandall & Murta, Consulting Geologists, 345 Kennedy Bldg.,
Tulsa, Oklahoma.

CRANDALL, RICHARD R.: 1920— Hollywood, California. Student in Geology, Stanford University.

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*CRANDALL, RODERIC: (m) A. B. Geology and Mining, 1906; A. M., 1907.

Port Washington, Long Island, New York.

Geologist on the Brazilian Geological Survey (Servicio Geologico e Mineralogico de Brazil), 1908-1912;

Chief Engineer in charge of Rio Branco Section of the "Defesa Borracha," stationed Rio Branco, Amazonas, Brazil, 1912-1913;

Brazilian Geological Survey, 1913-1914;

Technical Staff, Foreign Department, S. Pearson & Son Ltd., 47 Parliament Street, London, England, 1914-1919;

Technical Adviser in charge of oil drilling operations in Great Britain, for S. Pearson & Son, for British Government, 1918-1919;

Exploration Department, Sinclair Consolidated Oil Corporation, Office, 55 Liberty Street, New York City, 1919—
    Cranson, Lorin Alvin: 1918-
                               Sebastopol, California.
                      Student in Geology, Stanford University.
    CRAWFORD, RONALD FRANCIS: 1916-1917.
                     Hoquiam, Washington.
Student, Colorado School of Mines, 1920.
 *Creglow, Loran A.: 1919–
                               445 Forest Avenue, Palo Alto, California.
                      Student in Geology, Stanford University.
     CRESSY, CALVIN JOY: 1902-1904.
                               Modesto, California.
 *Crocker, Percy Summers: A. B. Geology, 1920.
                               Selma, California.
                     Company A, 27th Engineers, A. E. F., 1917-1919;
Topographic Control, San Joaquin Light & Power Co., 1919;
California Council of Defense, 1917;
With Yukon Gold Company, Kuala Lumpur, Federated Malay States, 1920—
    CROOK, MAUD L'ANPHERE: (Mrs. W. J. Crook) A. B. University of Utah, 1910.
                              22 Lasuen, Stanford University, California.
                     Teacher, Hygiene Dept., Stanford University, 1910, 1911, 1912; Chemist, Pacific Coast Steel Co., 1913; Chemist, Pacific Coast Steel Co., 1916-1919; Chief Chemist, Pacific Coast Steel Co., 1919-1921; Operator, Natividad Quarries, Monterey Co., 1921—
 *Crook, Welton Joseph: (m) A. B. Metallurgy, 1911; E. M. 1919.
                    9 San Juan, Stanford University, California.
Assistant, Metallurgy, Stanford University, California.
Assistant, Metallurgy, Stanford, 1910;
Chief Chemist, Pacific Coast Steel Co., South San Francisco, 1911-1913;
Professor Metallurgy, State School of Mines, Rapid City, South Dakota, 1913-1917;
Metallurgical Chemist, U. S. Bureau of Mines, P. P. I. E., 1915;
Metallurgist and Chief Chemist, Pacific Coast Steel Co., South San Francisco, 1917-1919;
In Officers' Reserve Corps, 1917;
Metallurgist and Chief Inspector, Pacific Coast Steel Co., 1919;
Designed and constructed lead-zinc concentrating mill, Salmo, B. C., for Pacific Coast
Steel Co., 1919;
Chief Metallurgist, Pacific Coast Steel Co., 1920—
Cooperating Analyst, U. S. Bureau of Standards, 1920—
Associate Professor of Metallurgy, Stanford University, 1921—
    CROSTON, JOHN, JR.: 1915-1916-
                    TON, JOHN, JR.: 1915-1916.

306 West 99th Street, New York City.

With Grand Reef Mining Co., Underground, 1913;

With Portland Gold Mining Co., Underground, 1914;

With Empire Mines and Investment Co., Underground, 1915;

With Inspiration Consolidated Copper Co., Experimental Flotation Work, 1915;

With Old Dominion Copper Mining and Smelting Co., Mine Engineering Staff, 1916.

With Portland Gold Mining Co., Experimental Work, 1916;

Engineer for W. P. L. Eshure and Associate, Designing and Building;

First Lieutenant, 27th Regiment, Engineers, A. E. F., 1917-1919;

Engineer, Weir Brothers & Co., 25 Broad St., New York City.
 *Culkin, Edmund A.: 1920-
                               Colorado Springs, Colorado.
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Student in Geology, Stanford University.

- *Cullen, Thomas Joseph: A. B. Geology, 1917. Gilroy, California, care of Carl Beal, 523 Wells-Fargo Bldg., San Francisco, California.
- CUNNINGHAM, BURTON L.: B. S. Oregon Agricultural College, 1905-1908.
 P. G. Colorado School of Mines, 1908-1909;
 Geologist, Consulting Geologist, Pan-American Petroleum Co., 1015 Security Building, Los Angeles, California.
- *Curtice, Aubrey A.: A. B. Geology, 1919.

 Spokane, Washington.
 U. S. N. R., Air Service, 1918-1919;
 Graduate Student in Mining and Metallurgy, Stanford University, 1920-1921;
 Geologist, Fillmore, California, 1920-1921;
 Geologist, with R. B. Moran, 724 South Spring Street, Los Angeles, California.
- *Curtis, Frank Duzze: (m) A. B. Chemistry, 1899; Pharm. B. University of California, 1902. 240 Minnesota Avenue, San Jose, California. Chemist, Frank L. Green Laboratories, San Francisco, 1902-1904; Druggist, President of firm, Curtis & Henkle, San Jose, California, 1904—
- CUTLER, HERBERT HOLLEY: 1919-Los Angeles, California. Student in Geology, Stanford University.
- DANIELLS, ALVA A.: 1915-1916. Lindsay, California.
- DAVIDSON, ELLIOTT EMERSON: (m) 1913-1914. Palo Alto, California.
- *Davis, Charles Hollister: (m) A. B. Yale, 1909; A. M. Geology, Stanford, 1912. Cheshire, Connecticut. Assistant Metallurgist, American Brass Co., Waterbury, Connecticut.
- *Davis, Eugene L.: 1916-1920. Santa Maria, California. With Yukon Gold Co., Ipoh, Federated Malay States, 1920-1921. Student in Geology, Stanford University.
- DAVISON, MAYNARD P.: 1918-Honolulu, Territory of Hawaii. Student in Geology, Stanford University.
- *Dechman, Dwight A.: 1917-1921; A. B. Geology, 1921. Box 438, Huntington Beach, California. Geologist with State Consolidated Oil Co., 1921; With Elliott Oil Well Core Drilling Co., December, 1921.
- *Decius, Louis Courtney: A. B. Geology, 1914. 479 Associated Oil Bldg., San Francisco, California.

 President, Stanford Scction, G. M. S. A. U., 1913;
 Assistant Explorer Geologist, Ministry of Agriculture, Argentine Government, 1913-'14;
 Explorer Geologist, Ministry of Interior, Argentine Government, 1914-1916;
 Field Geologist, Southern Pacific Co., 1916, 28 Steuart Street, Southern Pacific Building.
 San Francisco, California.

 Geologist, in charge of Exploration Work, Pacific Oil Co.
- DENNIS, HORTON THOMPSON: 1905-1908. 717 N. J Street, Tacoma, Washington.
- DENTON, ARTHUR PEEBLES: 1899-1901. 468 Fairmont Avenue, Oakland, California.
- DERBY, RICHARD: 1915-1917. San Francisco, California. Captain, Infantry, A. E. F., France, 1918-1919; Lieutenant-Colonel A. D. C., U. S. A., Headquarters, Western Dept., San Francisco, California.

*DIETRICH, WALDEMAR FENN: (m) A. B. Geology and Mining, 1913; E. M. 1914.

Box "A," Stanford University, California.

Member A. I. M. E., American Chemical Society, Engineers' Club of San Francisco. Sigma Xi;

Acting Instructor, Mining, Stanford University, California, 1913–1914;
Engineer, Copper Queen Consolidated Mining Co., Bisbee, Arizona, 1914–1915;
With Consolidated Arizona Smelting Co., Humboldt, Arizona, 1916;
Engineer, Oil Division, U. S. Fuel Administration, 1918;
Lecturer in Mining and Metallurgy, Stanford University, 1916–1917;
Assistant Professor, 1917–1919;
Associate Professor, 1919—

*Dievendorf, Horton Harold: (m) A. B. 1917. 1364 Scenic Avenue, Berkeley, California. Lieutenant Aviator, U. S. A., 1918; Geologist, Southern Pacific Co., San Francisco, 1919—

*Diggles, Eliza Marietta: 1895-1897. R. D. Colma, California.

†*Diggles, Grace Pattison: 1895-1897. Died, 1914.

†Diggles, James Arthur: 1891-1896. Died May 14, 1910.

*DIGGLES, ROBERT NEWTON: (m) Chemistry, 1896-1899.
Colma, San Mateo Co., Calif.
Cyanide Chemist and Metallurgical Engineer;
Manager, Hoboken Quartz Mine, Yreka, Siskiyou Co., California.
Member A. I. M. E.

†*DITTMAR, CARL FREDERIC: A. B. Pre-Legal, 1903. Redding, California.

*Dobbel, Charles Arthur: A. B. Geology, 1921.

Box 975, Butte, Montana.

Assistant, Civil Engineering, Stanford University, 1918—
Secretary, Stanford Section G. M. S. A. U., 1918-1919; President, 1920-1921;
Assistant, Field Geology, 1921;
Graduate Student in Mining, 1921;
Assistant Engineer, North Butte Mining Co., Butte, Montana, 1922.

DOBBEL, LILLIAN M.: 1919—
640 Forest Avenue, Palo Alto, California.
Student in Geology, Stanford University.

*Dodd, Harold Valby: 1905-1908; A. B. Geology, 1920; E. M. 1920.

Los Angeles, California.

In Government Service, 1917-1919;
Petroleum Research Fellowship, Graduate Student in Mining and Metallurgy, 1920-1921;
Inspector, Department of Oil and Gas, California State Mining Bureau, Taft, California, 1922—

*Dodd, Robert William: (m) A. B. Chemistry, 1903; A. M. Chemistry, 1904.

1516 Carol Avenue, Burlingame, California.

Assistant in Assaying, Stanford University, 1902-1904;
Instructor, General and Applied Chemistry, Cogswell Polytechnic College, San Francisco.

DOHENY, EDWARD LAWRENCE: (m) 1911-1912. 8 Chester Place, Los Angeles, California.

*Dole, Alfred Rowell: A. B. Geology and Mining, 1903. Hammonton, Yuba County, California.

DE DOMBROWSKI, BRONISLAW: 1913-1914. 71 Grand Prospect, Petrograd, Russia.

*Donaldson, Melvin Smith: A. B. Chemistry, 1919. 1224 Bellevue Ave., Burlingame, California. Pacific Coast Steel Co., 1922. DOUGHTY, RAEBURN M.: 1920-Austin, Texas. Student in Geology, Stanford University.

DRAGON, PAUL LOUIS: 1904-1906.

Marine and Tulare Street, Berkeley, California.
Office Manager, W. H. Weeks, Architect, 369 Pine Street, San Francisco, California.

*Drake, Noah Fields: (m) C. E. Arkansas, 1888; A. B. Geology, Stanford, 1894, A. M. 1895; Ph. D. 1897. Fayetteville, Arkansas. Fayetteville, Arkansas.

Assistant Geologist, Arkansas Geological Survey, 1887;

Assistant Geologist, Texas Geological Survey, 1889-1893;

Assistant Topographer and Assistant Geologist, U. S. Geological Survey, 1894-1897;

Engineer, Public Works Department, Tientsin Provisional Government, 1900-1901;

Secretary and Manager, Tientsin Land and Investment Co., Ltd., 1901-1902;

Consulting Geologist, American-China Development Co., 1902-1904;

Professor, Geology and Mining, Imperial Pei Yang University, Tientsin, China, 1898-1900: Consulting Geologies, and Mining, Imperial Fer Laure
Professor, Geology and Mining, Imperial Fer Laure
1898-1900;
Professor, Geology and Mining, Pei Yang University, 1905-1911;
Associate Professor, Geology, Stanford University, 1911-1912;
Professor, Geology and Mining, University of Arkansas, Fayetteville, Arkansas, 19121920:

Arkansas, 1921-

*Draper, Guy: 1917-

Arroyo Grande, California. Student in Geology, Stanford University.

DRIER, H. C.: 1919-1920.

c o Base Hospital, Palo Alto, California. Five years in Regular Army; A. E. F., France, 1918.

*Driver, Herschel L.: (m) A. B. 1919; Engineer, 1921.
720 E. Burnside St., Portland, Oregon.
Lieutenant, Engineer, Sound Ranging Corps, A. E. F., 1917-1919;
Graduate Student in Mining and Metallurgy, Stanford University.

*DUBENDORF, HORACE HAYES: 1912-1916.
Resident Geologist, Shell Oil Co. of California, Long Beach, California.

DUGAN, GERALD A.: 1915-1916. Tonopah, Nevada.

Duncan, Robert Fyfe Mein: 1916—
1815 Broadway, San Francisco, California.
Lieutenant, Infantry, U. S. A., A. E. F., France, 1918-1919;
Student in Geology, Stanford University.

DUNCAN, ROBERT JOHN: 1914-1916.
Plymouth, California.
Assistant Engineer, Plymouth Consolidated Gold Mines Ltd.

*DUNLAP, WILLARD EVERETT: A. B. Geology and Mining, 1915.
Chief Development Geologist, General Petroleum Co., Taft, California;
Fuel and Timber Department, A. T. S. F. Ry. Co., Los Angeles, California;
Chief Development Geologist, General Petroleum Corporation, Taft, California, 1920—

*Duryea, Philip Taylor: 1916-1922; A. B. Geology, 1922. Palo Alto, California.
Vice-President, G. M. S. A. U., 1918-1919;
Assistant, Mineralogy, 1919-1920;
Assistant Geologist, Shell Co., of California, Jan.-Oct., 1920.

EARL, GLEN MATTOX: 1920-Santa Monica, California. Student in Geology, Stanford University.

*Eddelman, W. S.: 1917-Martinez. California. Student in Geology, Stanford University. EDWARDS, HARRY JACK: 1920—
San Diego, California.
Student in Geology, Stanford University.

EHRICH, WALTER LOUIS: Ph. B. Yale, 1899; Stanford, Geology, 1899-1900; E. M. Colorado School of Mines, 1902.

Secretary and Treasurer, The Ehrich Galleries, 707 Fifth Avenue, New York.

ELLIOTT, D. WALTER: 1916—
433 Kipling St., Palo Alto, California.
Student in Geology, Stanford University.

*ELLIOTT, E. L.: (m) 1918–1921; A. B. Geology, 1921.
Pittsburgh, Pennsylvania.
Graduate Student in Mining and Metallurgy, Stanford University, 1921–1922.
President, G. & M. S. A. U., 1921.
Sampler, Ray Consolidated Mining Co., Ray, Arizona.

*Elliott, John Elbert: (m) A. B. Geology and Mining, 1912.

Stanford University, California.

Member A. I. M. & M. E., A. A. A. S., American Association of Petroleum Geologists, Engineers Club of San Francisco;
Chief Statistician, Associated Oil Co, 1911-1912;
Assistant Chief Geologist with Caribbean Petroleum Co., in Venezuela, 1912-1913;
Assistant Geologist, Shell Co. of California, Security Building, San Francisco, California, 1913-1915;
Chief Geologist, Shell Co. of California, Security Building, San Francisco, Calif., 1915-1920;
Associate Professor, Petroleum Technology, Stanford University, 1921—Elliott Oil Well Core Drilling Co., 1921-1922;
Elliott & Merrill, Consulting Engineers and Geologists, 1922—
1016 California Building, Los Angeles, California.

ELLIS, SIDNEY HEMENWAY: 1909-1910. R. F. D. Box 93, Los Angeles, California.

*ELLS, HARRY ARTHUR: 1917— Bellingham, Washington, Student in Geology, Stanford University.

*ELSEY, HOWARD McKee: A. B. Chemistry, 1914; A. M. Chemistry, 1915; Ph. D. Chemistry, 1919.

Lawrence, Kansas.

Assistant, Assaying, Stanford University, California, 1914-1915; Assistant, Organic Chemistry, Stanford University, California, 1915-1918; Assistant Professor of Chemistry, University of Kansas, 1918-1921; Associate Professor of Chemistry, University of Kansas, 1921—

*ERB, BENJAMIN EDWARD: A. B. Geology and Mining. 1919. Chemainus, British Columbia. Alaska Consolidated Mines Co., Juneau, Alaska, Washington, 1913—714 Hobart Building, San Francisco, California.

*ERICH, EZRA EDWARD: A. B. Geology and Mining, 1919; E. M., 1920.

546 North Fourth Street, San Jose, California.

Aviation Service, March Field, Riverside, California, May 5, to Nov. 29, 1918;
Engineer, San Luis Mining Co., Etcheguren, Suc. Mazatlan, Mexico, 1917-1918;
Superintendent Squaw Creek Exploration, Watkins, Oregon, 1920.

Mine Examination and Operating Properties for Augustus Locke, 1920-1921;
Address, 788 Mills Building, San Francisco, California.

*Evans, Mark: 1917—
Minto Bridge, Yukon Territory, Canada.
Yukon Gold Co., Dawson, Y. T., Canada, 1911;
Exploration on the Adam Mineral Claim, Mayo District, Y. T., 1913-1915;
Holding option and doing development work on the Iron mineral claim, Mayo District,
Y. T., 1916;
Secretary-Treasurer, G. M. S. A. U., 1919-1920;
Student in Geology, Stanford University.

EWING, SYDNEY CLEMENT: 1920-

Bedford, England. Student in Geology, Stanford University.

EWING, THEODORE GIRARD: 1915-1917.

Exeter, California.

FANT, DAVID LUCKETT: 1918-

401 Palo Pinto Street, Weatherford, Texas. Student in Geology, Stanford University.

FARISH, EDWARD TILGHMAN: 1920-Student in Geology, Stanford University.

FARISH, LINN MARKLEY: 1920—Woodland, California.

Student in Geology, Stanford University.

FAUSTINO, LEOPOLDO ALCARAZ: B. E. 1917; E. M. 1922, Ohio State University.
Assistant Chief, Division of Mines, Bureau of Science, Manila, P. I.;
Graduate Student in Geology, Stanford University, 1922.

FAY, JAMES ARCHER: 1899-1903.

Engineer, Chicago, Milwaukee & St. Paul Railroad, 1907-1912; Fruitgrower, Anaheim, California, 1912-

FENNELL, JOHN VINCENT: 1919-

Eureka, Utah.

Student in Geology, Stanford University.

*Ferguson, Roy Noble: (m) A. B. Geology and Mining, 1907.

339 North Third Street, San Jose, California.
Assayer with A. M. Strong, Bishop, Inyo County, California, 1907;
Petroleum Geologist, with Associated Oil Co., 1907-1912;
Deputy Supervisor, Department of Petroleum and Gas, California State Mining Bureau,
Taft, California, 1916-1919;
Petroleum Engineer, American Technical Mission to Poland, care American Legation,
Warsaw, Poland, 1920;
Consulting Engineer and Geologist, 417-419 Brower Bldg., Bakersfield, California, 1921—

*FILLEY, EDWARD PRIOR: 1917-1922; A. B. Geology, 1922.

1005 Fair Oaks Avenue, South Pasadena, California. Producing Department, Standard Oil Co., San Francisco, California.

*Fish, Lounsbury Slaght: A. B., C. E. 1921.
308 Lincoln Ave., Palo Alto, California.
Engineer, Standard Oil Co., San Francisco, California, 1922—

FISHER, PAUL REVERE: 1914-1916.

205 Forthcamp Avenue, Fresno, California.

Fisher-McNulty, Contracting Engineers.

FLETCHER, HAROLD BAKER: A. B. Geology, 1919.

Palo Alto, California.

FLOWERS, MONTAVILLE DEAN, JR.: Geology Department, 1920. 66th Artillery, C. A. A., A. E. F., 1917-1919; Yukon Gold Co., Ipoh, Federated Malay States, 1920.

**Folsom, David Morrill: (m) A. B. Geology and Mining, 1902; A. M. 1904.

om, David Morrill: (m) A. B. Geology and Mining, 1902; A. M. 1904.

1221 Waverley Street, Palo Alto, California.
Consulting Engineer for Elkoro Mines Co., 1916;
President, Stanford Section G. S. A. U., 1903;
Engineer, Boston-Montana Consolidated Copper and Silver Mining Co., Great Falla,
Montana, 1904-1909;
Assistant Professor, Mining, Stanford University, 1910-1911;
Associate Professor, 1912-1917;
Professor, 1917-1918;
Chief of Petroleum Division, U. S. Fuel Administration of Pacific Coast, 1918;
Director, General Petroleum Corporation, Alaska Commercial Bldg., San Francisco, Calif.

*Forbes, Fred Brodie: A. B. Geology and Mining, 1914.

Stanford University, California.

Engineer with F. A. Pellas & Co., Granada, Nicaragua, Central America, 1914—
Mining Engineer, Lieutenant, Headquarters, Philippine Dept., Camp Eldrige, Laguna, Manila, P. I.

*Forbes, James Hyde: A. B. Geology, 1913.

1638 Fourth Avenue, Los Angeles, California.

With Spring Valley Water Co., Niles Cone, Niles, California, 1913-1914;

Associated with J. P. Lippincott, Los Angeles, on water supply investigation for:—

City of Santa Barbara Water Department, 1914-1915;

City of Riverside and Riverside Water Co., 1915;

With Spring Valley Water Co., San Francisco, California, 1916, in charge of ground-water hydrographic and irrigation investigations;

Associated with Duryea, Haehl & Gilman, San Francisco, on ground-water investigation in Nevada, 1916;

In charge of ground-water supply and irrigation investigation, Lindsay-Strathmore Irrigation District, 1917;

Engineer Corps, U. S. Army, 1918;

With Lindsay-Strathmore Irrigation District, 1919 to May, 1920;

Engineer and Geologist, May, 1920 to April, 1921, Los Angeles, California;

Engineer and Geologist, Specializing in Underground Water Development and Investigations, April, 1921—

Office, 1317 Humboldt Bank Bldg., San Francisco, California.

FORD, ROBERT MARTIN: 1920-

Lamar, Colorado. Student in Geology, Stanford University.

*Forster, Albert: 1919— Mexico City, Mexico.

Student in Geology, Stanford University.

FOSTER, LORA RUTH: (Mrs. Roderic Crandall) 1905-1907.

Port Washington, Long Island, N. Y.

*Fowler, John Shively: A. B. Geology and Mining, 1918.

428 Wisnom Avenue, San Mateo, California.

Metallurgical Chemist, Bethlehem Foundry and Machine Works, South Bethlehem,
Pennsylvania, 1919–1920;
Metallurgist, Pacific Foundry Co., San Francisco, California, 1920—

*Fox, Byron: A. B. Geology and Mining, 1916.

825 Cowper Street, Palo Alto, California.
Engineer, Yukon Gold Co., 1916;
Hobart Building, San Francisco, California:
Exploration Work in Malay, 1919—; care J. F. Newsom, San Francisco, California.

Fox, Leo Sanor: 1920— .
Santa Barbara, California.
Student in Geology, Stanford University.

*Fox, Philip Benton: A. B. Geology and Mining, 1912.
Redwood City, California.
Assayer and Chemist, La Leonesa Mine, Montagalpa, Nicaragua, Central America, 1912-1914.

Franklin, Charles Scott: 1919-

Stanford University, California. Student in Geology, Stanford University; With Associated Oil Co., April-September, 1921.

†Franklin, George Glazier: 1903-1905.

FRAPWELL, WILBUR REED: 1918-1919.

73 Ocean View Avenue, Santa Cruz, California.

FREEMAN, LOUIS RANSOM: 1905-1909.

287 E. California Street, San Francisco, California.

- *FRINK, LESTER DANIEL: (m) A. B. Geology and Mining, 1904.
 503 West Galena Street. Butte. Mont.
 Mining Engineer, North Butte Mining Co.;
 Surveyor, Speculator Mine, Butte and Superior Mining Co., Butte, Montana.
- *FRIZZELL, PORTER TAYLOR: A. B. Chemistry, 1907.
 450 Tenth Street, Portland, Oregon.
 Metallurgist, Cio Rio de la Plata, Guagapares, Chihuahua, Mexico, 1909-1910.
- *Frolli, Albert William: A. B. Geology and Mining, 1910.

 216 N. Main Street, Salinas, California.

 Geology, Mining, Milling, Mexico, Arizona, California, 1910-1911;
 Mining Engineer, Babilonia Mine, La Libertad, Nicaragua, 1911-1913;
 Mining Engineer, Presidio Mining Co., Shafter, Texas, 1914-1917;
 Superintendent, Study Butte and Texas Almaden Mining Companies, Texas, 1917-1919;
 Superintendent, Black Hawk Con. Mines Co., New Mexico, 1919;
 Efficiency Engineer, Eng. Dept., United Verde Co., Arizona, 1920-1921;
 Mining Engineer and Geologist, Presidio Mining Co., Texas, 1921-
- †Fukuzawa, Umekichi: A. B. Metallurgy, 1916. Died June 20, 1917.
- Fuller, Lewis Everett: 1900-1903. San Mateo, California.
- *Fuller, Raymond August: (m) A. B. Geology and Mining, 1907. Assistant Manager, Penn Mining Co., Campo Seco, California.
- *Fyfe, Andrew Douglas: (m) A. B. Geology, 1913.

 724 So. Spring St., Los Angeles, California.

 Petroleum Geologist, Standard Oil of New York, Colombia, S. A., 1914-1915;

 Petroleum Geologist, Empire Gas & Puel Co., Mid-Continent Fields, 1915-1917;

 Petroleum Geologist, Southern Pacific Co., California, 1917;

 Petroleum Geologist, Doheny-Pacific Petroleum Co., California, 1918;

 Petroleum Geologist, General Petroleum Corp., Texas, Louisiana, California, 1919-1920;

 Consulting Geologist, Los Angeles, California, 1920—
- **Garfias, Valentin: (m) A. B. 1907; A. M. 1912; M. E. 1914.

 Room 1201, 60 Wall Street, New York City.

 Maintenance of Way Department, Southern Pacific Railroad Co., 1907-1908;
 Assistant in Civil Engineering, Stanford University, 1906-1910;
 Geological Department, Associated Oil Co., 1908-1909;
 Consulting Petroleum Engineer with Ralph Arnold, 1910-1915;
 Petroleum Engineer, with U. S. Bureau of Mines, 1915;
 Professor, in charge of Petroleum Engineering, Stanford University, 1915-1919;
 In charge of Mexican Oil Investigations for U. S. Treasury Department, 1918-1919;
 Consulting Petroleum Geologist and Petroleum Engineer in United States, Cuba, Mexico, etc.;
 In charge of Foreign Oil Department, Henry L. Doherty & Co., 60 Wall Street, New York, 1919—
 Special Commissioner of the Petroleum Department of the Mexican Government, 1920.
- †*GARFIELD, RAYMOND SHELDON: A. B. Geology and Mining, 1898. Died March 9, 1898.
- *Garner, Aubrey Hamilton: A. B. Geology and Mining, 1912.

 120 Broadway, New York.

 Geologist and Field Manager with Caribbean Petroleum Co., Venezuela, 1912-1917;
 Consulting Geologist, with Chester Washburn, New York, 1917;
 Lieutenant, Aviation, U. S. A., 1917-1919;
 Consulting Geologist with Brokaw, Dixon, Donnelly, Garner & McKee, Geologists and Petroleum Engineers, 90 West Street, New York, 1919—
 Member A. I. M. E.; American Association of Petroleum Geologists.
- GARY, WRIGHT W.: 1917-1920. 488 Galena Boulevard, Aurora, Illinois.
- †GATES, MARY JULIA: 1893-1894.

 Mountain View, California.

 Engaged in Biological Research at Pacific Grove, 1918-1919;
 Engaged in Botanical and Geological Research, Albion, Mendocino County, California.

- GAUSE, BRUCE WICKLIFFE: 1919-1920. Pixley, California.
- *GAY, HAROLD SINCLAIR: (m) A. B. Geology and Mining. 1904.

 200 South Wilson Avenue. Alhambra, California.

 Superintendent, Kane Springs Mining Co., California, 1906–1907;
 With American Smelters Securities Co., 1907;
 Minas Tecolates, Anexas, 1907–1909;
 Bonanza, Zacatecas, Mexico, via Saltillo;
 Cashier, Superintendent, Minas Bonanza y Anexas, 1909–1911;
 Mining Engineer, Currier Building, Los Angeles, California, 1912–1913;
 Personal Mining Interests, 1914; 1917–1922;
 Cananea Copper Co., 1915–1917.
- *GAY, LESLIE ROWELL: (m) A. B. Geology and Mining, 1909. Assayer, Surveyor and Assistant in Mining Work; Rancher, Redlands, California.
- GEER, FRED ASAHEL: 1899-1901. Turlock, California.
- *GEHRMANN, WILLIAM CONRAD: A. B. Geology, 1913.
 Davenport, Iowa.
 Geologist, with Caribbean Petroleum Co., Venezuela, 1913-1914;
 Buyer, Kohrs Packing Co., Davenport, Iowa, 1914-1919.
- *GIBBS, CHESTER WILLIAM: A. B. Chemistry, 1920.
 Orcutt. California.
 Engineering Work, Yukon Gold Mining Co., Ipoh, Federated Malay States, 1920-1921;
 Graduate Student in Mining and Metallurgy, 1921—
- GIBSON, FLORIAN GREENLEAF: 1915— Palo Alto, California. Ensign, U. S. N. R., 1918; Chief Petty Officer, U. S. N., 1919. Student in Geology, Stanford University.
- GIBSON, WILLIAM EARL: 1919— Palo Alto, California. Student in Geology, Stanford University.
- GILBERT, JAMES CORNELIUS: 1919-1921; A. B. Geology, 1921. 35 Claremont Ave., New York City. Student, Columbia School of Mines.
- *GILCHRIST, SAMUEL AUGUSTUS: 1895-1897.
 Assayer, Tuolumne County, California.
- GILL, BURGO DOYLE: 1921; B. S. University of Florida.
 Box 606, Palo Alto, California.
 Graduate Student in Mining and Metallurgy, Stanford University.
- *GILLESPIE, BARTLETT WHITMER: A. B. Geology, 1920, Santa Maria, California. Geologist, Cias. del A. G. W. I., Tampico, Mexico, 1920–1921. Production Department, Chanslor-Canneld Midway Oil Co., 1922; Redondo Beach, California.
- *GILMAN, CHARLES EDWARD: (m) 1897-1901.

 851 Calmar Avenue, Oakland, California.

 Assistant Geologist, Branner-Agassiz Expedition to Brazil, 1899;
 Consulting Engineer and Geologist with Duryea, Haehl & Gilman, 1905-1919;
 Civil and Mining Engineer, Hobart Building, San Francisco, California, 1919-1922.
- **GIRTY, GEORGE HERBERT: A. B. Yale, 1892; Ph. D. 1894; Stanford, 1894-1895.
 Paleontologist, U. S. Geological Survey, 1895—
 U. S. Geological Survey, Washington, District of Columbia.

*GLEIM, EDGAR MILLER: (m) A. B. Geology and Mining, 1906.

760 Waverley Street, Palo Alto, California.

President, Stanford Section, G. S. A. U., 1905;
Assistant Engineer, Minas Tecolates, Santa Barbara. Chihuahua, Mexico, 1906;
Superintendent, Presidio Mining Co., Shafter, Presidio County, Texas, 1907-1918;
Manager, Study Butte Mining Co., 1919—
Superintendent, Presidio Mining Co., 1921—

GODDARD, GLENN: 1921—
Carbondale, Illinois.
Student in Geology, Stanford University.

GOODALL, CHARLES F.: 1903-1905.

La Mesa, California.

Assistant Engineer, San Diego & Arizona Railway.

*Goudy, Franklin Burris: A. B. Geology and Mining, 1907; A. M. Columbia, 1908.

President, Stanford Section, G. S. A. U., 1906;
Field Engineer, Ed Millard & Co., Ely, Nevada, 1907;
Superintendent Rio Grande Reservoir and Ditch Co., 1908;
Mining Engineer, Smuggler-Union Mining Co., Colorado, 1909;
Consulting Engineer, St. Paul Mining Co., Colorado, 1909;
Consulting Engineer, St. Paul Mining Co., Congress Gold and Copper Co., Esmeralda Mine, Ross Mining and Milling Co., 1910;
Superintendent, Vermillion Mining Co., 1910;
Mining Engineer, Iowa Gold Mining and Milling Co., 1911–1912;
Manager, Southern Exploration and Mining Co., 1911–1913;
Mining Engineer, 1914–1915;
Attorney-at-Law, 1915, firm of Goudy & Goudy;
President, Gaston Copper Mining Co., 1918;
Assistant Manager, Colorado Valley Land Co., Rio Grande Land and Canal Co., Rio Grande Reservoir and Ditch Co., Monte Vista Canal Co., 1916;
Vice-President, Bankers Loan and Mortgage Co., 736 Gas and Electric Bldg., Denver, Colorado, 1920—

GRAY, JESSE ALLEN: 1919 — Bristol, Tennessee. Student in Geology, Stanford University.

*GREEN, Waldron A.: 1912-1916.

Pasadena, California.
Geologist, Elkoro Mines Co., Jarbidge, Nevada, 1916;
Second Lieutenant, U. S. A., 27th Engineers, A. E. F., France;
Producing Department, Standard Oil Co., Bakersfield, California;
Superintendent of Mines at Caracoles, Bolivia, c/o Guggenheim Bros., Casitla 674, La Paz, Bolivia.

*Gregersen, Albert Ingstrup: 1920— '
Solvang, California.
Student in Geology, Stanford University.

Greve, Frank Henry: 1914-1917. Hollywood, California.

GRIGSBY, HARRY CLAY: (m) A. B. Geology and Mining, 1905.

Ontogata, Sonora, Mexico.

Superintendent, Wilson and Grigsby placer property, Nome, Alaska, 1905;
Engineer of Development, Alto Mining and Smelting Co., Florence, Arizona, 1905–1906;
Superintendent, 1906–1907;
Mining Engineer for Marvin, Ish & Co., Goldfield, Nevada, 1908–1909;
Superintendent of Construction, Palmer, McBride & Quayle, on Western Pacific Railroad 1909

*GRIMSLEY, GEORGE PERRY: A. B. Ohio State University, A. M. 1891; Ph. D. Johns Hopkins, 1894; Graduate Geology, Stanford, 1900–1901.

Address wanted.

GUILD, FRANK NELSON:
Tucson, Arizona.
Professor of Chemistry and Optical Mineralogy, University of Arizona, Tucson, Ariz.

†GUYER, CLOYD GEORGE: 1902-1905. Dead.

*HAEHL, HARRY LEWIS: (m) A. B. Geology and Mining, 1900; A. M. 1902. 275 Lowell Avenue, Palo Alto, California. Hydraulic Engineer, 1314-1316 Humboldt Bank Building, San Francisco, California.

*HAINES, WILBUR HEATH: 1914-1918: 1919-370 Staten Avenue, Oakland, California.
Engineer, Ensign, U. S. N. R., 1918-1919;
President, Stanford Section G. M. S. A. U., 1919-1920;
Assistant Mineralogy, 1917, 1919-1920;
Assistant, Field Geology, 1920.

*HAKE, BENJAMIN FRANKLIN: (m) A. B. Geology, 1920.

Assistant Geologist, Wyoming Geological Survey, 1916;
Petroleum Exploration, Baker Oil Co., Wyoming, 1919;
Assistant in Geology, Stanford University, 1919-1920;
Lieutenant, C. A. C., Headquarters Department, R. A. R., A. E. F., France, 1918-1919;
Field Geologist for Carl Beal in Mexico.
Care Carl Beal, 607 First National Bank Building, San Francisco, California.

†HALE, FREDERIC ALBERT, JR.: 1905-08. Died 1918.

*HALL, ELWIN BENONI: A. B. Geology, 1915. 3080 San Marios Street, Los Angeles, California.

Instructor, Field and Topographic Geology, Stanford University, summer, 1914.

*HALL, MORTIMER LOUIS: A. B. Geology and Mining, 1913. 555 S. Los Robles Avenue, Pasadena, California.

HALLEY, ALBERT SMITH: (m) A. B. Geology and Mining, 1904.
Rapid City, South Dakota.
Metallurgist, Mogul Mining Co., 1905;
President, First National Bank, Rapid City, South Dakota, Banking and Quarrying;
Honorary Member, South Dakota State School of Mines Geology and Mining Society.

*HALLIDAY, THOMAS WOODRUFF: A. B. Geology and Mining, 1911. Rupert, Idaho. Engineer, Rupert Electric Co., Rupert, Idaho, 1913—

*Hamilton, Henry L.: (m) A. B. Geology, 1904.

Houston, Texas.

Geologist and Manager of Oil Field Properties, 609 Carter Bldg., Houston, Texas.

*Hamilton, Walter Raleigh: (m) A. B. Geology and Mining, 1904. Tulsa, Oklahoma. Consulting Engineer and Oil Operator, Oil Issues Co., Kennedy Building, Tulsa, Okla.

*HAMLYN, THOMAS J.: A. B. Geology, 1921. 624 C Street, Marysville, California, Assistant in Civil Engineering, 1919— Graduate Student in Mining and Metallurgy, 1921—

*Hammon, Wendell C.: A. B. Geology, 1914. 1000 Chestnut Street, San Francisco, California. With W. P. Hammon, 433 California Street, San Francisco, California; Captain, 4th Engineers, U. S. A., 1918–1919.

HANCOCK, DONALD W.: 1918-1330 Lemon Street, Riverside, California. Student in Geology, Stanford University.

*HANNIBAL, HAROLD: A. B. Geology, 1913. Box 21, Stanford University, California.
Petroleum Geologist with Ralph Arnold, 1911–1915;
General Secretary, G. M. S. A. U., 1914;
Graduate Student in Geology, Stanford University, 1914;
Research Paleontology and Structural Geology, Coast Ranges, 1916—

HARLAN, ORREN ARTHUR: (m) A. B. Geology and Mining, 1904. 275 South Seventeenth Street, San Jose, California. Mining, Alleghany, Sierra County, California.

*HARPER, PAUL COATES: (m) 1901-1903.

Hoge Building, Seattle, Washington.
Banker, Vice-President, Seattle Title Trust Co., Seattle, Washington.
Investment Banker, President Wm. P. Harper & Son:
Vice-President of Building Owners and Managers Association, Seattle, Washington, 1917-1922;
President, Briggs, Harper, & Co., Insurance.

*HARRIS, RICHARD CHARLES: 1920— Long Beach, California. Student in Geology, Stanford University.

HARTLEY, JAMES JOHN: 1918— Napa, California. Student in Geology, Stanford University.

*HAVENS, HAROLD: (m) 1897-1900.
Assistant Geologist, Branner-Agassiz Expedition to Brazil, 1899;
Real Estate, Berkeley, California.

*HAWLEY, HENRY JAMES: A. B. Geology and Mining, 1916; A. M. 1917.

Portland, Oregon.

Assistant in Mineralogy, 1915-1916;
Assistant in Field Geology, 1916;
Engineer with Monterey County, California, 1916;
Geologist, Standard Oil Co., 1918-1919;
Lieutenant, Field Artillery, U. S. A., 1918;
Geologist in Mexico.

*HAYES, ALLAN SIDNEY: 1912-1916.
Resident Geologist, General Petroleum Corp., Higgins Bldg., Los Angeles, California.

†*HAYES, FRANCIS WILLIAM: A. B. Geology and Mining, 1915. Died 1918.

HAYNE, W. A. B.: 1918—
2030 Broadway, San Francisco, California.
Student in Geology, Stanford University.

HEATER, WILLIAM EARL: 1919.
Ritzville, Washington.
Student in Geology, Stanford University.

HELLWIG, HERBERT FREDERICK:
51 San Leandro Way, San Francisco, California.
Civil Engineer, Standard Oil Co. of California, San Francisco, California.

HENDERSON, ALEXANDER D., JR.: 1923— Lovelock, Nevada. Student in Geology, Stanford University, 1922—

*Henderson, Charles William: A. B. Geology and Mining, 1910.

409 New Postoffice Building, Denver, Colorado.

Assistant Statistician, Mineral Resources, U. S. Geological Survey, San Francisco, California, 1907-1908;

Statistician-in-charge, Mineral Resources, Denver office, U. S. Geological Survey, Denver, Colorado, 1908—

Mineral Geographer in charge, Mineral Resources, Denver Office, U. S. Geological Survey, Denver, Colorado, 1921—

*Henderson, Paul L.: 1916—
Greeley, Colorado.
Student in Geology and Mining, Stanford University:
Tollman Geological Survey, 1919;
Montezuma Petroleum Co., 1920;
Assistant, Summer Geology, 1920;
Geologist, with H. R. Johnson, 1101 Stock Exchange Building, Los Angeles, California, 1921—

*Henley, Arthur Sidney: (m) 1900-1904.

1105 Truxillo Avenue, Houston, Texas.
Geologist with Caribbean Petroleum Co., Venezuela, 1912-1913;
Engineer, Empire Mine, Grass Valley, California, 1913-1915;
General Superintendent of Mining with Noble Electric Steel Co., 1915-1910:
Geologist with H. L. Hamilton, 1917-1918;
Geologist with Hamilton & Walker, 1918-1919;
Geologist with Oil Issues Co., 1920-1921;
Consulting Petroleum Engineer and Geologist, 1921-1922;
417 Carter Building, Houston, Texas.

*Henry, Lou: (Mrs. Herbert C. Hoover) A. B. Geology, 1898.
Stanford University, California.
President, Stanford Geology Club, 1896–1897;
Associate Translator of Agricola's "De Re Metalica."
Temporary Address, 2300 S Street, Washington, D. C.

HENRY, WILLIAM HOWARD: 1914-1916. Los Angeles, California.

*Herold, Stanley Carrollton: A. B. Geology and Mining, 1909.

5729 Holden Street, Pittsburgh, Pa.
Assistant Surveyor, Montana-Tonopah Mining Co., Tonopah, Nevada, 1909-1910;
Mining Engineer, Macnamara Mine, Tonopah, Nevada, 1910-1911;
Construction Engineer, Union Construction Co., Seward Peninsula, Inmachuck River, season 1912;
Geologist with Caribbean Petroleum Co., Venezuela, 1913-1914;
Geologist with Standard Oil Co. of New York, Cartagena, Colombia, S. A.;
Post Graduate Student, Stanford University, 1916;
Geologist with Benedum & Trees, Pittsburgh, Pennsylvania, 1917, Plaza Hotel, Buenos Aires;
Geologist with Gypsy Oil Co., 1918-1919;
Chief Geologist, Tulsa District, Sinclair Oil & Gas Co., 1920;
Consulting Geologist, 1921.

*Hertel, Francis Westerfield: A. B. Geology, 1921.
Pasadena, California.
Resident Geologist, Associated Oil Co.
Hotel De Loon, Ventura, California.

*Hess, Frank L.: (m) A. B. Geology and Mining, 1903.

Field Assistant and Geologic Aid, U. S. Geological Survey, 1903-1906;
Assistant Geologist, 1906;
Geologist, 1911—
U. S. Geological Survey, Washington, D. C.

†*Higley, Wynter Blain: (m) A. B. Geology and Mining, 1909; died January 1, 1915.

*HILBY, GEORGE ROBERT: A. B. Geology and Mining, 1914.

Monterey, California.
Chief Draftsman, Lou G. Hare, Salinas, Monterey County, Cailfornia;
Mine Surveyor, Ruth, Nevada;
Draftsman, Headquarters California State Highway Commission;
Lieutenant, Air Service, Ellington Field, Texas;
Draftsman, Flood Central Division State Dept. of Engineering, Sacramento:
Civil and Mining Engineer for Surveyor General, Sacramento.
Address, c/o Surveyor General, Sacramento, California.

HILL, HARRISON WESLEY: 1897-02.

Spokane, Washington.

Real estate, c|o Vera Land and Development Co.

HINTON, WILLIAM FRANK: 1919— Hansen, Idaho. Student in Geology, Stanford University.

HITCHCOCK, DONALD MILLWOOD: 1919.
Paso Robles, California.
Student in Geology, Stanford University.

HOBSON, FRANK ALFRED: 1914-1916. Springbrook, Oregon. With A. E. F., France, 23d Engineers; Present Address, Cedar Crest Farm, Hillsdale, Oregon. †Hobson, HARRY Townsend: 1915-1916. Killed in the Marne Mine, August 6, 1919. See E. & M. Journal, August 23, 1919. HOLADAY, PERRY WARD: 1919-1922. San Jose, California. †Holden, HARRY A.: 1911-1914; died December 26, 1914. *Holley, Harry Hall: (m) A. B. Geology and Mining, 1901.
518 Encina Avenue, Visalia, California.
Civil Engineer, Mount Whitney Power Co., Visalia, California, 1904-1908;
Civil and Hydraulic Engineer. HOLLINGSHEAD, DELBERT JOHN: 1919-Lincoln, Nebraska. Student in Geology, Stanford University. *HOLLISTER, JOHN JAMES: (m) A. B. Geology and Mining, 1896. 35 West Carillo Street, Santa Barbara, California. Superintendent, Providence Consolidated Gold Mining Co., California, 1905-1906; Superintendent, Peregrina Mining and Milling Co., Guanajuato, Mexico, 1907-1908; General Superintendent, Hines Consolidated Mining Co., Santa Barbara, Mexico, 1908-(9; Real Estate, with Hollister Estate Co., Santa Barbara, California. *HOLLOWAY, GODFREY ERNEST: (m) A. B. Geology and Mining, 1917.
2635 State Street, Butte, Montana,
Engineering Department, Anaconda Copper Co., Butte, Montana;
W. A. Clark's Interests, Butte, Montana. †HOLMES, JOHN ELMER: 1897-1900; A.B. Chemistry, 1901. Died July 18th, 1917. HOLMES, WILLIAM WILLARD: 1921-Hollister, California. Student in Geology, Stanford University. *HOLSTON, ASHLY STANFORD: 1919-200 Leland Avenue, Mayfield, California. Student in Geology, Stanford University. *Holway, Ruliff Stephen: (m) A. B. Geology, 1903; M. S. University of Cali fornia, 1904. 2577 Buena Vista Way, Berkeley, California.
Head of Department of Geography, University of California, 1908;
Associate Professor of Physical Geography, University of California, 1914–1919;
Professor of Physical Geography, University of California, 1919. *Hook, Joseph Stanley: A. B. Geology, 1910; A. M. 1913. **HOOK, JOSEPH STANLEY: A. B. Geology, 1910; A. M. 1913.

Perris, Riverside County, California.

Instructor in Economic Geology, Cornell University, Ithaca, New York, 1912-1916;
Tennessee State Geological Survey, 1913-1914;
Geologist for Marland Renning Co., Ponca City, Oklahoma, 1916-1917;
Master Electrician, 44th Aero Squadron, U. S. A., 1917-1918;
Second Lieutenant, Air Service, Lubrication Engineer, Wilbur Wright Field, Dayton, Ohio, 1918-1919;
Geologist, Carter Oil Co., Tulsa, Oklahoma, 1919;
With Sinclair Oil Co., 120 Broadway, New York.

**HOOVER, HERBERT CLARK: (m) A. B. Geology and Mining, 1895.

Stanford University, California.

Manager, Director and Consulting Engineer for various mining companies in the United States, Australia, China, Korea, Burma, New Zealand, and South Africa; Chairman, Commission for Relief in Belgium and Northern France, 1914-1917;
U. S. Food Administrator, Washington, D. C., 1917-1918;
Alternating Chairman, Supreme Economic Council, 1919;
General Director, American Relief Administration, 1919;
President, A. I. M. E., 1920;
President, Federated Engineering Societies, 1920;
Secretary of Commerce, 1921—
Temporary Address, 2300 S Street, N. W., Washington, D. C.

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Home, 450 Melville Avenue, Palo Alto, and Rancho Del Oso, Santa Cruz County; office, Mills Building, San Francisco, California, and 1 London Wall Buildings, London, England.

Assayer, Keystone Consolidated Mining Co., Amador City, California, 1902;
Assistant Manager, Standard Consolidated Mining Co., California, 1904;
Manager, Standard Consolidated Mining Co., Bodie, California, 1904;
Consulting Engineer, Compoplitan Proprietary, Ltd., Mexico, 1906;
General Manager, Minerals Separation, Ltd., London, 1907–1909;
Consulting Engineer, Minerals Separation, Ltd., London, 1907–1909;
Consulting Engineer, Minerals Separation, Ltd., London, 1910;
Consulting Engineer at 1 London Wall Buildings, and Mills Building, San Francisco;
Managing Director of Zinc Corporation, Ltd., Lake View and Oroya Exploration, Ltd.;
Chairman of Yuanmi Gold Mines, Ltd., Central American Mines, Ltd., Babilonia Gold
Mines, Ltd., Granville Mining Co., Ltd., Natomas Land and Dredging Trust, Ltd.,
Oroya Links, Ltd., Maikop Areas, Ltd., Maikop Pipe Line and Transport Co., Ltd.,
Burma Mines, Ltd., Burma Trust, Ltd., Carmon Valley, Ltd., Dunderland Iron Ore
Co., Ltd., Inter-California Trust, Ltd., Carmon Valley, Ltd., Dunderland Iron Ore
Co., Ltd., Inter-California Trust, Ltd., Lake View and Star, Ltd., Mawchi Tin and
Wolfram Mines, Ltd.;
President, Oroville Dredging, Ltd.;
Consulting Engineer for Burma Corporation, Ltd., Messina Development Co., Ltd.,
Miami Copper Company, 1911–1920;
Professor of Mining and Metallurgy, Stanford University, 1919—
KINS, Thomas Cramer: (m) B. S. De Pauw, 1887; A. M. Geology, 1892; Ph
**Hoover, Theodore Jesse: (m) A. B. Geology and Mining, 1901.
     *HOPKINS, THOMAS CRAMER: (m) B. S. De Pauw, 1887; A. M. Geology, 1892; Ph
                                                            D. Chicago, 1900
                              733 Crouse Avenue, Syracuse, New York.
Assistant Geologist, Arkansas State Geological Survey, 1889–1892;
Geologist, Indiana State Geological Survey, 1895–1896; 1901;
Assistant Professor of Geology, Pennsylvania State College, 1896–1899;
Professor of Geology, Syracuse University, New York, 1900—
     *Housh, Cecil Noble: 1919-1922; A. B. Geology, 1922.
                                           111 Oklahoma Ave., Guthrie, Oklahoma.
     *Howard, Grenville Gates: (m) A. B. History, 1915.
                            Los Angeles, California.

Superintendent, Huststeea Petroleum Co., Tampico, Mexico, 1912-1913;
Assistant Curator of Museum of Arts and Sciences, Stanford University, 1913-915;
Field and Refining Practice with Standard Oil Co. and Western Union Oil Co., Los
Angeles, California, 1915-1916;
Managing Geologist for Hager & Bates, 1916;
Director and Chief Geologist, Interstate Oil and Gas Co., Houston, Texas;
Vice-President, Manager and Director, Okla-Tex Oil and Refining Co., Houston, Texas;
Consulting Geologist, Carter Building, Houston, Texas.
U. S. Army, 1917-1919;
Chief Geologist, Commonwealth Petroleum Corp., 1919-1920;
Consulting Geologist, Los Angeles, California, 1920-1921;
Field Work, Mexico and California;
Member, Jamieson & Howard, Consulting Geologists, Great Falls, Montana.
Associated with George W. Goethals & Co., Inc., 40 Wall St., New York City.
                                          Los Angeles, California.
         HUFF, WILLIAM EARLIN: 1920-1922; A. B. Geology, 1922.
                                           Mountain View, California.
     *Hughes, Arthur Dickinson: A. B. Geology and Mining, 1908.
                             45 Third Avenue, San Francisco, California.
Assayer, Yukon Gold Co., Dawson, Yukon Territory, 1908-1909;
Superintendent, Columbian Mines Co., Atlin, British Columbia, 1910-1914;
Mining, Atlin, British Columbia, 1915-1916;
Resident Manager, Yukon Gold Co., Murray, Idaho, 1917-1918;
First Lieutenant U. S. A., October-December, 1918;
Mining Engineer, Yukon Gold Co., Kuala Lumpur, Federated Malay States, 1919.
     *Hulsman, Ivan M: 1911-1916.
                              Susanville, California.
U. S. Service, 1918–1919, Headquarters Field Artillery, 13th Brigade.
        HUMPHREYS, HARRY FRANK: (m) A. B. Geology, 1911.
                              Sunnyvale, California.
Superintendent, Lane Mill, Darwin, California, 1917-1918;
Mill Foreman, Nicklas Mining Co., Nevada, 1918-1919;
With Joshua Hendy Iron Works, Sunnyvale, California, 1919-1922.
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*Hunley, John Burdell: A. B. Geology and Mining, 1914.
Newton, Washington.
Surveyor and Assayer, Seven Troughs, Nevada;
Mining Engineer, Presidio Mining Co., Shafter, Texas, 1917—
Superintendent, Study Butte Mining Co., Study Butte, Texas.

*Hunter, Kenneth Hume: (m); A. B. Geology, 1920.

Menlo Park, California.

Ensign, Aviator U. S. N., 1918-1919;

With Standard Oil Co., Whittier, California, Resident Geologist, 1920;

With Standard Oil Co., Los Angeles, California, Research Geologist, 1921—

*Hurt, Everett Price: 1921; B. S. Metallurgy and Mining, University of Arizona. Stanford University, California.

Graduate Student in Mining and Metallurgy, Stanford University.

*Huston, Harry Lee: (m) 1895-1900.

Miner, Millman, Assayer, Surveyor, California and Oregon Mines, 1900-1903;
Mine Superintendent, San Rafael Copper Co., Sonora, Mexico, 1903;
Mine Superintendent, Emma Gold Mining Co., Sampson Con. Gold Mining Co., Central Hill Gravel Mining Co., California, 1903-1905;
Mine Superintendent, Soulsby Mining Co., Tuolumne County, California, 1905-1907;
General Manager, Ohio-Tonopah Mining Co., Overland Mining Co., Nevada, 1907-1910;
General Manager, Keltz Mining Co., Tuolumne County, California, 1910-1911;
General Manager, Atbasar Copper Fields, Ltd., Akmolinsk Province, Turkestan Territory, Siberia, 1912-1914;
Consulting Mining Engineer, 634 Mills Building, San Francisco, California, 1914-1918; Siberia, 1912-1914: Consulting Mining Engineer, 634 Mills Building, San Francisco, California, 1914-1918; Vice-President and Manager, National Metals and Chemical Co.; Vice-President and Manager, Columbia Consolidated Mines Co.; President and Manager, Patterson Mining Co.; Consulting Mining Engineer, 407 American National Bank Bldg., San Francisco, Calif.

*Hyde, James Macdonald: (m) A. B. Geology and Mining, 1901.

260 Churchill Avenue, Palo Alto, California.
Cable address, "Jamehyde."
Assistant in Assaying, Stanford University, 1900-1901;
Curator, California State Mining Bureau Museum, 1901-1902;
Professor of Mining and Metallurgy, University of Oregon, 1903-1906;
Metallurgist, Guanajuato (Mexico) Consolidated Mining and Milling Co., 1906;
Superintendent, Manhattan Ore Reduction and Refining Co., Manhattan, Nevada, 1908;
Consulting Metallurgist, Butte and Superior Mining Co., 1911-1913;
Independent Mine Operator and Consulting Engineer, 1911-1919;
Mining and Metallurgical Engineer (Specialty, Treatment of difficult ores), Mills Building, San Francisco, California.
Professor of Metallurgy, Stanford University.

*JACKSON, BYRON NICHOLSON: A. B. Geology and Mining, 1901. 836 Kensington Road, Los Angeles, California. Millman, Inyo County, California;
Assayer and Chemist, Bodie, California;
Superintendent, Napoleon Mine, Calaveras County, California;
Cyanide Manager, San Jose de Gradia, Sinaloa, Mexico;
Metallurgist, Abila, Arizona;
Geologist, Caribbean Petroleum Co., 1912–1913.

JACKSON, JOHN KENYON: 1920— Stockton, California. Student in Geology, Stanford University.

JACKSON, RHEES: 1897-1898 3150 Elm Street, Oakland, California,

†JACOMINI, CLEMENT, JR.: 1915-1917; Lieutenant in aviation; killed in accident at Rockwell Field, San Diego, California, August 2, 1918.

JAMES, WRIGHT ELWOOD: 1920 Compton, California. Student in Geology, Stanford University.

*JAMESON, JOY GILBERT: (m) A. B. Geology and Mining, 1908. Corona, Riverside County, California. Citrus Fruitgrower and Packer.

JENKINS, HENRY S.: 1915-1917.

209 North Front Street, St. Marys, Ohio.
The H. S. Jenkins Insurance Agency, General Insurance and Investment Securities.
Pauck Building, St. Marys, Ohio.

*JENKINS, OLAF P.: (m) A. B. Geology, 1913; A. M. 1915.
Pullman, Washington.

Auiiman, Washington.

Assistant Geologist with the Branner Expedition to Brazil, 1911;

Assistant Geologist of the Tennessee State Geological Survey, 1913-1916;

Assistant Geologist, The Gypsy Oil Co., Tulsa, Oklahoma, 1916;

Assistant Professor of Economic Geology, State College of Washington, 1916-1918;

Geologist on the Washington Geological Survey, 1917;

Field Gelogist, Southern Pacific Co., 1918;

Geologist to the Arizona Bureau of Mines, University of Arizona, Tucson, Arizona, 1918-1919;

Geologist Single Consultant Office Consultant Con

Geologist, Sinclair Consolidated Oil Corporation, 120 Broadway. New York, 1919–1920; Associate Professor, Economic Geology, State College of Washington, Pullman, Washing-

Geologist in charge of Field Work, Washington Geological Survey, 1921-

*JOHNSON, HARRY ROLAND: (m) A. B. Geology, 1909.
President, Stanford Section, G. M. S. A. U., 1903;
Consulting Geologist.

Petroleum Consultant, 1101 L. A. Stock Exchange Bailding, Los Angeles, California.

*Johnston, Duncan McArthur: (m) 1912-1916.

335 Athol Street, Oakland, Cailfornia.
With California State Mining Bureau, 1916;
With U. S. Mining Bureau, 523 Wells Fargo Building, San Francisco, California:
Geologist, Pacific Oil Co., 659 Southern Pacific Building, San Francisco, California.

JONES, KELLOGG: (m) 1916-1917.

Palo Alto, California. Mill Statistician, Utah Copper Co., 1917-1921.

JOPE, HAROLD HEWITT: 1915-1916.

Roseburg, Oregon.

JOPSON, FRANK GRANVIL: 1919-

San Jose, California. Student in Geology, Stanford University.

JORDAN, CHARLES WILLIAM: 1912-

Ouray, Colorado.
Mill Superintendent, Colorado Vanadium Corporation;
Engineer, Hidden Treasurer Mines Co., Ouray, Colorado, 1921.

*JORDAN, KNIGHT STARR: (m) A. B. Geology and Mining, 1911.

Care Knight Investment Company, Provo, Utah.
Automobile and Real Estate Business, 1911-1912;
General Manager, Secretary-Treasurer, various Knight Companies, Provo, Utah, 1913-17;
Enlisted in U. S. Naval Reserve Force, 1917; Foreign Service, 1918; relieved from active duty, rank of lieutenant (junior grade), 1919;
General Manager, Secretary-Treasurer, various Knight Companies, 1919-1920;
General Manager and Mining Engineer, various Knight Companies, 1921-1922;
1922—Temporary Address, Stanford University.

*Jost, Fred: A. B., M. E., 1897; Graduate Geology and Mining, 1899-1900.
721 Cole Street, San Francisco, California.

Superintendent of various mines.

Mining Engineer, 244 California Street, San Francisco, California.

JOYCE, SAMUEL F., JR.: 1919-

Webster Groves, Missouri. Student in Geology, Stanford University.

Jukich, Martin John: 1914-1916. Sausalito, California.

KAY, DAVID NELSON: 1904-1910.

1416 15th Street, Sacramento, California. With Ray Consolidated Copper Co., Hayden, Arizona, 1911—Mining Engineer.

Keller, Donald Archibald: 1919— Ukiah, California.

*Kellogg, Roy Seldon: A. B. Chemistry, 1908.

365 North El Molino Avenue, Pasadena, California.

Salesman, Lee Chamberlain & Co., Los Angeles, California.

*Kenney, Charles Edmond: A. B. Geology and Mining, 1902.

Bourne, Oregon.

Cyanide Superintendent, Standard Consolidated Mining Co., Bodie, California, 1912-1913.

KENT, HUGH McELWEE: 1916-1917.
Address wanted.
U. S. Army, 1918-1919.

†Kerr, Paul Francis: A. B. Chemistry, Occidental College, 1919. San Jacinto, California. Graduate Student in Mining and Metallurgy, 1920—

*KESSLER, HARRY HALL: 1899-1902.
Superintendent of Standard Consolidated Mine, Bodie, California, 1966: Metallurgical Engineer, El Cajon, California.

*KETELSEN, CARL: 1910-1912. Oatman, Arizona.

*KILDALE, MALCOLM BRUSE: 1917-1921; A. B. Geology, 1921. Eureka, California. Graduate Student in Geology, Stanford University, 1921— Secretary, G. M. S. A. U., 1922.

*KIMBALL, EDWIN BOYCE: (m) A. B. Geology and Mining, 1895.

284 Mountain Avenue, Piedmont Station, Oakland, California.

Cable address, "Ebkim," San Francisco.

Consulting Mining Engineer, 515 Rialto Building, San Francisco, California.

King, Preston Wallace: 1903-1907. 184 Arguello Boulevard, San Francisco, California.

King, Raymond Ervin: 1919— Porterville, California. Student in Geology, Stanford University.

*King, Vernon Leslie: A. B. Geology and Mining, 1916.
Petaluma, California.
With Pittsburgh Silver Peak Mining Co., Nevada, 1913;
With Utica Mining Co., California, 1915;
Geologist, Mid-West Refining Co., Denver, Colorado, 1917;
Second Lieutenant, Field Artillery, U. S. A., 1918;
With Dr. E. A. Starke, Petroleum Engineer, 1920;
Geologist and Engineer, Western Division, Union Oil of Delaware, 303 Higgins Building.
Los Angeles, California.
Engineer, Union Oil of Delaware Interests.

KIRBY, DORRELL WILLIAM: 1920— Darwin, California. Student in Geology, Stanford University.

KIRCHNER, ERNEST MARTIN: 1915-1916. San Pedro, California.

KLAMT, AUGUSTUS JOSEPH: 1900-1903.
Trona, California.
General Superintendent, American Trona Corporation, Trona, California.

*Kleinpell, William Darwin: A. B. Geology, 1921. Los Angeles, California.

Flotation Operator, Magma Copper Co., Superior, Arizona, 1917–1918;
Field Assistant, Engineers Exploration Co., Mexico, 1921;
Geologist, South American Gulf Oil Co., Colombia, 1922.

KNECHT, CARL EMIL: (m) A. B. Geology and Mining, 1899; A. M. 1900.

Box 2269 Johannesburg, Transvaal, South Africa.

Geologist and Chemist, American Oil and Asphalt Co., Los Angeles, 1909;
Assayer and Assistant Cyanide Superintendent, Free Gold Mining Co., Hedges, 1901;
Chief Sampler, Crown Reef Gold Mining Co., Ltd., 1902;
Chief Surveyor, Crown Reef Gold Mining Co., 1903-1904;
Assistant Engineer, The Consolidated Mines Selection Co., Ltd., 1904-1912;
Consulting Engineer, The Consolidated Mines Selection Co., Ltd., Rand Selection Corporation, Ltd., New Era Consolidated, Ltd., Brakpan Mines, Ltd., Springs Mines, Ltd.,
Daggafontein Mines, Ltd.

KNEPPER, EARL H.: (m) A. B. Geology and Mining, 1903. 1009 Manhattan Place, Los Angeles, California. Mining Engineer, Allis-Chalmers Co.; Yukon Gold Co., Singapore, Malay Peninsula.

*Knoche, Edward Louis Herman: A. B. Botany, 1899. Hotel Vendome, San Jose, California. Publication: "Flora Balearica."

KNOWLTON, DONALD RYBER: 1922—; A. B. Geology, University of Colorado. 652 Everett Street, Palo Alto, California.

Graduate Student, Mining and Metallurgy, Stanford University.

KNOX, GEORGE LIVINGSTON: 1917-1922; A. B. Geology, 1922. 325 Everett Avenue, Palo Alto, California.

*Knox, Newton Booth: (m) A. B. Geology and Mining, 1895; E. M. Columbia. 1897.

9 Upper Hamilton Terrace, London, W., England. Assistant to Louis Janin, 1897-1898, San Francisco, California; Assayer, Standard Consolidated Gold Mining Co., Bodie, California, 1890-1900; Superin-Assayer, Standard Consolidated Gold Mining Co., Bodie, California, 1890–1900; tendent of same, 1900–1901;
Engineer, Berwick & Co., Ltd., London, England, 1901–1904;
Consulting Engineer, Anglo-Japanese Co., in Japan, 1904–1909;
Examination of Mines (alluvials especially), all over the world, 1909–1915;
Consulting Engineer of Phoenicia Mines, Ltd., Spain, 1915–1919;
Managing Director Phoenicia Mines, Ltd., Spain, 1919–1920;
Director Gorente Lousami Funelicion Co., S. A. Noya, Corona, Spain;
Office, 1 Mitre Court Building, Inner Temple, London; Mines at Noya, Spain;
Mining Engineer (alluvials especially).

*KOERNER, WILLIAM: A. B. Geology and Mining, 1909. 481 East Forty-fifth Street, North, Portland, Oregon. Assistant Engineer, Inspiration Copper Co., Globe, Arizona, 1909-1912; Superintendent, Barker Mines Co., Hughesville, Montana, 1913; Superintendent, Gray Eagle Copper Co., Happy Camp, California; Engineer, Mason Valley Mines Co., Thompson, Nevada; Engineer, Flin Flan Syndicate, The Pas, Manitoba, Canada.

KORTE, KENDALL CHARLES: 1920— Medical Lake, Washington. Student in Geology, Stanford University.

†*Kramm, Hugo Edmund: A. B. Geology and Mining, 1909; A. M. 1910; died January 11, 1913.

KUDER, CLYDE S.: 1911-1913. 1811 Resseguie Street, Boise, Idaho.

*LACEY, WILLIAM NOBLE: A. B. Chemistry, 1911; C. E. 1912; M. S. 1913, University of California; Ph. D., 1915, University of California. Pasadena, California. Assistant in Assaying, Stanford University, 1911;

Assistant in Chemistry, University of California, 1912-1915;
Research Chemist and Assistant to Works Manager, Giant Powder Co., Giant, California, 1915;
Research Associate in Physical Chemistry, Massachusetts Institute of Technology, Boston, Massachusetts, 1916;
Instructor in Inorganic and Industrial Chemistry, Throop College of Technology, Pasadesistant Professor, Throop College of Technology, 1917-1918, on leave of shapene for Assistant Professor, Throop College of Technology, 1917–1918, on leave of absence for military service;
Associate Professor, Chemical Engineering, California Institute of Technology, Pasadena, California, 1919—

LAMB, PORTER EMERSON: 1899-1902. Avalon, California.

LAMBERT, GERALD SNOW: B. S. Geological Engineering, University of Utah. Butte, Montana.

Assistant Professor of Geology, Montana School of Mines;

Associate Geologist, Montana State Bureau of Mines and Metallurgy.

*LANAGAN, WILLIAM HENRY: A. B. Geology and Mining, 1905.

Office, 1057 Monadnock Building, San Francisco, California.

Engineer, Guggenheim Exploration Co., 1905-1908;
Assistant Manager, Wild Goose Mining and Trading Co., Nome, Alaska, 1908-1911;
Manager, Orsk Goldfields, Ltd., London and East Siberia, 1911-1915;
Mining Engineer, San Francisco, 1915—

*LANE, FULTON: A. B. Geology and Mining, 1906.

University Club, Los Angeles, California.
Field Engineer, U. S. Field Corps, Sacramento, California;
Mining and Civil Engineer with A. M. Strong, Bishop, California;
Deputy County Surveyor, Inyo County, 1907-1909;
Assistant Engineer, Jawbone and Mojave Divisions of Los Angeles Aqueduct, 1909-1912;
Assistant Engineer, Washington Building;
President of Board of Public Utilities, City Hall, Los Angeles, California.

LANG, GLEN IRVING: 1919-Santa Cruz, California. Assistant Instructor, Physical Education, Santa Cruz High School, 1920.

LANGSTROTH, FRANCIS BLACKBURN: 1904-1907. 204 Balboa Building, San Francisco, California.

*LANTZ, GROVER BERNER: (m) A. B. Metallurgy, 1913. With West End Consolidated Mining Co., Trona, California; With Solvay Process Co., Saldura, Utah.

*LA PEIRE, GEORGE WARREN: A. B. Geology and Mining, 1916.
436 Hamilton Avenue, Palo Alto, California. Geologist, Empire Gas and Fuel Co., Bartlesville, Oklahoma, 1916–1918; Lieutenant Engineers, U. S. A., 1918–1919; Geologist, Barranquilla, S. A., 1919–1920; Consulting Geologist, 1920–1921; Resident Engineer, Honolulu Consolidated Oil Co., Taft, California.

*LARSEN, J. U.: 1917-1918; 1920-Warren, Arizona. Student in Geology, Stanford University.

*LASKY, BERNARD HAROLD: A. B. Geology and Mining, 1913. CY, BERNARD HAROLD: A. B. Geology and Mining, 1913.

214 Twenty-eighth Avenue, San Francisco, California.

Engineer with Eagle-Shawmut Mining Co., California, 1913;

Engineer with Presidio Mining Co., Shafter, Texas, 1913-1914;

Field Engineer, Mammoth Copper Co., Kennett, California, 1915-1916;

Field Engineer, United States Smelting, Refining and Mining Exploration Co., in Arizona, 1916—

Geologist, Empire Gas and Fuel Co., Bartlesville, Oklahoma, 1917—

Geologist with Hager, Bates & Lewis, Consulting Geologists, 219 Lynch Building, Tulsa. Oklahoma, 1917—

Master Engineer, 316th Engineers, Headquarters Company, A. E. F., 1918;

Second Lieutenant, Engineer Corps, A. E. F., 1918-1919;

Consulting Petroleum Engineer and Geologist, 305 Atco Building, Tulsa, Oklahoma †LAUGHLIN, CHARLES EUGENE: 1905-1907. Deceased.

†LAWRENCE, GEORGE RICHARDSON: 1897-1901. Died March 10, 1910.

LAWSHÉ, WALTER DELANY: 1897-1899. 1352 Tenth Ave. W., Vancouver, B. C.

†LAWSON, MILLARD ERNEST: A. B. 1919; died in service, October. 1918.

LEA, A. V.: 1919— Wayland, Texas. Student in Geology, Stanford University.

†LEE, HOWARD S.: Died October, 1918.

LEE, NAYLOR C.: 1912-1914.

Berkeley Hotel, East Park and Mulberry Streets, Newark, New Jersey.

*LEE, WAH SEYLE: (m) A. B. Geology and Mining, 1915; A. M. 1916.

San Francisco, California.

Geologist, Empire Gas and Fuel Co., Bartlesville, Oklahoma, 1916;
Assistant to Chief Geologist, Fuel Oil Department, Southern Pacific Co., 1917-1919;
Assistant Geologist, China Expedition, Associated Oil Co., 1920.

*Leib, Earl Russell: (m) A. B. Geology and Mining, 1912. 505 Andrews Boulevard, Los Angeles, California. Coast Manager, Sharp-Hughes Tool Co., Los Angeles, California, 1913-1914; Geologist.

Leland, Harry Russell: 1897-1899. No. 2 Virginia Apts., Parkersburg, W. Va.

Le Marinel, Kenneth F.: 1919— Spokane, Washington. Student in Geology, Stanford University.

LEMBKE, H. J.: 1918—
325 North Lemon Street, Orange, California.
Student in Geology, Stanford University.

*LEMMON, ALLEN BOSLEY, JR.: A. B. Geology and Mining, 1901.
Fair Oaks, California.
Warrant Registrar to State Controller, Box 603, Sacramento, California.

Lett, Andrew Hilliard: A. B. Geology and Mining, 1905. Magnolia Avenue, Riverside, California.

LEVY, EDMOND L.: 1902-1906.

San Mateo, California.

Levy Bros., San Mateo, California.

*Lewis, James Ogler: (m) Geology, 1905-1909; A. B. Geology, 1917.

414 Forest Avenue, Pacific Grove, California.

Geologist, Associated Oil Co., 1909-1911;
Geologist with Harry R. Johnson, 1911-1912;
Geologist with R. B. Moran, 1912-1914; in Texas, 1913;
Oil and Gas Inspector, Indian Agency, Muskogee, Oklahoma, 1914-1915;
Petroleum Technologist, Bureau of Mines, San Francisco, California, 1915—
Superintendent, Petroleum Experiment Station, U. S. Bureau of Mines, Bartlesville Oklahoma, 1918-1919;
Chief Petroleum Technologist, Bureau of Mines, Washington, D. C., 1919-1921;
Consulting Engineer, associated with Smith & Dunn, Marietta, Ohio.

*Lewis, Robert Strong: A. B. Geology and Mining, 1905; E. M. 1912.

University of Utah, Salt Lake City, Utah.
Surveyor, Detroit Copper Mining Co., Morenci, Arizona, 1905;
Superintendent Kuykendall Mining and Milling Co., Carlsbad, New Mexico, 1906;
Engineer in charge of Warrior Copper Co., Globe, Arizona, 1906–1907;
Engineer, with Steptoe Valley Mining and Smelting Co., McGill, Nevada, 1908–1910;
Engineer, with Goldfield Consolidated Mining Co., Goldfield, Nevada, 1911;
Associate Professor of Mining, Utah University, Salt Lake City, Utah, 1912–1916;
Professor of Mining, Utah University, Salt Lake City, Utah, 1916—

**LINDGREN, WALDEMAR: (m) M. E. Freiberg, 1883; D. Sc. Princeton, 1916.

12 Littel Road, Brookline, Massachusetts.

Assistant Geologist, Northern Transcontinental Survey, 1883;

Assistant, Gregory Lead Smelting Works and Anaconda Copper Smelting Works, 1884-Assistant Geologist, U. S. Geological Survey, 1885;
Associate Professor, Mining and Metallurgy, Stanford University, 1897–1898 c
Geologist, U. S. Geological Survey, 1895–1912;
Chief Geologist, U. S. Geological Survey, 1911–1912;
Professor, Economic Geology, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1912—

LITTLE, JOHN ELWIN: 1907. Whittier, California.

LITTLE, ROBBINS: (m) 1906-1908. 412 Pacific Finance Building, Los Angeles, California.

LODER, EDWARD STARK: 1919-Palo Alto, California. Student in Geology, Stanford University.

*Loel, Wayne: (m) A. B. Geology and Mining, 1916; A. M. Geology, 1917.
620 Belmont Avenue, Los Angeles, California.
Assistant in Mineralogy, Stanford University, California, 1916;
Assistant in Mineralogy and Geology, 1917;
Geologist, Southern Pacific Co. in Texas, 1917-1918;
Lieutenant Engineers, Camp A. A. Humphreys, Virginia, 1918;
Geologist, General Petroleum Corporation, California and New Mexico, 1919;
Geologist with Ralph Arnold, 1920—
1025 Stock Exchange Building, Los Angeles, California.

*Longmire, William Richard: A. B. Geology and Mining, 1916. Box 532, Lawton, Oklahoma

The Southern Pacific Railroad Co. Geological Department, Southern Pacific Building, San Francisco, California, 1916; tieological Department Empire Gas and Fuel Co., Bartlesville, Oklahoma, 1916—Marland Refining Co., Ponca City, Oklahoma, Box 617, Pawhuska, Oklahoma; Oklahoma Central Oil Co., Tulsa, Oklahoma; Pierce Oil Corporation, Lawton, Oklahoma

*Longyear, Robert D.: A. B. Williams College, 1914; A. M. University of Wisconsin, 1915. 710 Security Building, Minneapolis, Minnesota. Graduate Student in Geology, Stanford University, 1915-1916; Geologist, E. J. Longyear Co., 1916— Coast Artillery, 1918.

*Louis, Gilbert Ernest: (m) 1906-1910.

Los Angeles, California.

Right of Way and Tax Department of Los Angeles and Salt Lake Railroad Co., 507

Pacific Electric Building, Los Angeles, California.

LOSKAMP, ALVIN POWELL: B. S. Syracuse, 1921. 611 South Norton Avenue, Los Angeles, California. Graduate Student in Geology, Stanford University, 1922—

*Luhrs, Arthur Cleveland: A. B. Geology and Mining, 1909. Ray Consolidated Mining Co., Ray, Arizona, 1909.

Luis, Franklin Alfred: 1909-1912; B. S. Mining Engineering, University of Arizona, 1915.

Route B, care of M. Suckow, Salinas, California.

With Agricultural Experiment Station, under G. E. P. Smith, Irrigation Engineer, Tucson, Arizona, 1915-1916.

Engineer, American Smelting and Refining Co., Christmas, Arizona, 1916-1918.

With 316th Engineers, 91st Division, U. S. A., 1918-May, 1919; Farmer, Salinas, California.

*Lundquist, Leonard Cottrell: 1917-1921; A. B. Geology, 1921.

1511 Baken Street, San Francisco, California.
Graduate Student in Mining and Metallurgy, Stanford University.

*Lyman, Ceorge Byron: (m) A. B. Geology and Mining, 1916.

*Yuba City, California.

Sampling, Engineering and Efficiency Departments, Copper Queen Cons. Mining Co., Biebee, Arizona, 1916-1917;
Second Lieutenant, Field Artillery, U. S. A., 1918;
Chief Geologist, Copper Queen Branch, Phelps-Dodge Corporation, 1919—
Box 189, Bisbee, Arizona.

*Lyne, Henry Stephens: A. B. Geology and Mining, 1914.

Care F. T. J. Lyne, Tallangatta, Victoria, Australia.

Irrigation Engineer for Brazilian Government, 1912;
Engineer with Mount Bischoff Tin Mining Co., Warratah, Tasmania, 1913-1914;
With Australian Contingent of British Army in Egypt, 1914-1915;
With Australian Contingent of the British Army in France, 1915-1918;
Millman and Superintendent, Jersey Mine, Iron Mt., Ltd., Salmo, B. C., 1919;
Petroleum Geologist, in Brazil and Pachuca, Mexico, 1920;
Petroleum Geologist, Perija Exploration Co., Maracaibo, Venezuela, 1921-

LYNN, HAROLD FREDRIC: 1920—
Palo Alto, California.
Student in Geology, Stanford University.

*Lyon, Dorsey Alfred: A. B. Chemistry, 1898; A. M. Harvard, 1902.

United States Bureau of Mines, Washington, D. C.
Assistant, Chemistry Department, Stanford University, 1897-1898;
Professor, Mining and Metallurgy, University of Washington, 1898-1901;
Assistant State Geologist, Washington, 1900-1901;
With the United States Smelting Co., Utah, 1902-1903;
Instructor and Assistant Professor, Metallurgy, Stanford University, 1903-1908;
Manager, Noble Electric Steel Co., Heroult, California, 1908-1911;
Metallurgist, U. S. Bureau of Mines, 1912-1917;
Metallurgist and Supervisor, Experiment Stations, U. S. Bureau of Mines, 1917;
Chief Metallurgist and Supervisor, Experiment Stations, U. S. Bureau of Mines, 1917 -

†Lyons, Raymond Houston: 1905-07. Died September 29, 1907.

McAdam, Robert: 1914.
Pasadena, California.
First Lieutenant, Quartermaster Corps, U. S. A., 1918-1919.

*McCann, Robert James: (m) A. B. Geology and Mining, 1912.

530 South Sixth Street, San Jose, California.

Examining Engineer, Yukon Gold Mining Co., 1911;
General Manager, Longfellow Mining Co., Oak Flat, California, 1912-1913;
Engineer with Eagle-Shawmut Mining Co., Chinese Camp, California, 1913-1914;
Promoter and Part Owner, South Fork Mining Co., La Porte, Plumas County, California;
Mining Engineer, Specialty, Placer;
Engineer for Exploration Purposes, Oroville Dredging, Ltd., Colombia, S. A.

*McClellan, H. Wallace: 1919-1922; A. B. Geology, 1922. Klamath Falls, Oregon. Empire Mines, Grass Valley, California, 1922.

*McCloskey, Downs: A. B. Geology and Mining, 1918.
Durango, Colorado.
Smuggler Leasing Co., Aspen, Colorado.

McCullough, A. Stafford: A. B.

Box 111, Clifton, Greene County, Ohio.
Geologist with Barber Asphalt Co., Venezuela, 1913;
Graduate Student in Geology, Stanford University, 1915-1916;
Geologist with the Carter Oil Co., in Oklahoma and Kansas, 1916-1917;
Chief Geologist for the Carter Oil Co., in the Western States, 1917-1918, 602 Ideal
Building, Denver, Colorado;
Chief Geologist for the Carter Oil Co., in the Western States, Continental Building,
Casper, Wyoming, 1919;
Geologist for Sun Oil Co., American Exchange National Bank Bldg., Dallas, Tex., 1920—
Chief Geologist, Sun Oil Co., Toledo, Ohio, 1920-1921.
Geologist, Clifton, Ohio, 1922.

†*McDaniel, George William: (m) A. B. Geology and Mining, 1908; died November 21, 1916.

McDonald, Augustus: 1905-1907.

Apartado 55, Guanajuato, Mexico. General Superintendent, San Pedro Unit, Guanajuato Reduction & Mines Co., Guanajuato, Mexico, 1921-

*McEuen, Albert Harry: 1914-1917. Bishop, California.

*McFadden, Ralph John: (m) A. B. Geology and Mining, 1908. Sierra Madre, California. Salesman, Concrete Machinery and Supply Co., Los Angeles, California.

McInerney, Burrell: 1918— 3702 Cedar Springs Road, Dallas, Texas. Student in Geology, Stanford University.

McIntosh, F. Russell: 1919-Pachuca, Mexico. With Compañía de Real del Monte y Pachuca.

*McKenna, John Shore: (m) A. B. Geology and Mining, 1916. Lemoore, California.
Geologist, Empire Gas and Fuel Co., Box 578, Bartlesville, Oklahoma, 1916;
Geologist, Shell Co., of California, 343 Sansome Street, San Francisco, California, 1917—

*McLain, George Brundage: 1908-1913. 3529 W. 10th Street, Los Angeles, California.

*McLaughlin, Roy Parmalee: (m) A. B. Geology and Mining, 1902; E. M., 1915
485 California Street, San Francisco, California,
Assistant Engineer, North Star Mines Co., Grass Valley, California, 1904;
Engineer, Standard Consolidated Mining Co., Bodie, California, 1905-1906;
Engineer, Mono Lake Railway and Lumber Co., Bodie, California, 1907;
Geologist, Associated Oil Co., San Francisco, California, 1908-1913;
Chief of Petroleum Department, State Mining Bureau, San Francisco, 1913-1915;
State Oil and Gas Supervisor, 1915-1920;
Petroleum Engineer and Geologist, 1921-1922.

McLellan, Frank Lloyd: 1893-1895. 628 North First Street, San Jose, California.

*McNair, Stuart Strathy: (m) A. B. Geology and Mining, 1912.

Production Department, Pierce Oil Corp., Fort Worth, Texas.

Empire Zine Co., Canyon City, Colorado, 1913—

McNary, Clarkson DeWeese: 1914-1916. Tempe, Arizona. At West Point Military Academy, 1916-1919; Lieutenant, U. S. Regular Army, 1919—

McNaught, Carl Shelby: (m) 1900-1904. Hermiston, Oregon.

*McNaught, Hector Cowan: A. B. Geology and Mining, 1905.
745 Fillmore Street, Denver, Colorado.
Mining Engineer, La Grange Ditch and Hydraulic Mining Co., 1905;
Mining Engineer, Yukon Gold Mining Co., 1906-1909;
Engineer, Hendryx Cyanide Machinery Co., Denver, Colorado, 1909-1910;
Mining Engineer, Guggenheim Exploration Co., 1911-1915;
Superintendent of Construction and Operation, Yukon Gold Co., 1916-1917;
Carrville, Trinity County, California;
Mining Engineer, Yukon Gold Co., 1918-1919.

McNulty, Hugh William: (m) 1913-1917. 1115 T Street, Fresno, California. Engineer, Ray Consolidated, Ray, Arizona; Fisher & McNulty, Contracting Engineers.

*McPherson, James Douglas: A. B. Geology, 1920.
772 So. 11th Street, San Jose, California.
With 27th Engineers, A. E. F., France, 1918-1919;
With Calaveras Copper Co., Copperopolis, California, 1919-1920;
Assistant, Field Geology, 1921;
Graduate Student in Mining and Metallurgy, Stanford University, 1920—

MACDONALD, AUGUSTUS: 1905-1907.

Apartado 55, Guanajuato, Mexico.

General Superintendent, San Pedro Unit, Guanajuato Reduction and Mines Company.

Guanajuato, Mexico, 1921.

*MACKENZIE, ANDREW NICHOLS: (m) 1912-1916; A. B. Geology, 1921.

1312 Stevenson Avenue, Pasadena, California.
Oil Geologist with Empire Gas and Fuel Co., Bartlesville, Oklahoma, 1916-1919;
Petroleum Geologist, Gypsy Oil Co., Tulsa, Oklahoma, 503 Clinton Building;
Exploration Work in Nicaragua, Central America, for Gypsy Oil Co., 1920;
Assistant, Field Geology, 1921;
Graduate Student in Geology, Stanford University, 1922—
634 Hamilton Ave., Palo Alto, California.

MACPHERSON, FREDERIC ROGER: 1905-1907.

Phoenix, Arizona.

Chief Engineer, Southwest Cottin Co., Phoenix, Arizona, 1917—

*Macready, George Alexander: A. B. Geology and Mining, 1910.
614 South Carondelet Street, Los Angeles, California.
Instructor, Geology, Stanford, 1910-1911;
Geologist with Caribbean Petroleum Co., Venezuela, 1912-1914;
Graduate Student, Geology; Walker Museum, University of Chicago, Illinois, 1914:
Resident Geologist with Trinidad Lake Petroleum Co., Ltd., Brighton, Trinidad, West Indies, 1914Geologist, Shell Oil Co., San Francisco, California.

*MAILLOT, ELMER ELLSWORTH: 1920— Alameda, California. Student in Geology, Stanford University.

*MALM, WALTER R.: A. B. Mining, 1917.

2424 Steiner Street, San Francisco, California.
Chemist, Pacific Coast Steel Co., South San Francisco;
Chemist, Smith, Emery & Co., San Francisco;
Chemist and Assistant Metallurgist, Merrill Metallurgical Co., 1916;
District Metallurgist, San Francisco District, Bureau of Aircraft Production;
Metallurgical Engineer, Hobart Building, San Francisco, California.

MALONY, JOHN FULLER: 1920—
San Francisco, California.
Student in Geology, Stanford University.

MANN, HORACE: A. B. Geology and Mining, 1910.
1212 Glen Avenue, Berkeley, California.
Civil Engineer, U. S. Engineer's Office, 240 Montgomery Street, San Francisco, Calif

†Martin, Hugh Bradshaw: 1916— Los Angeles, California. Student in Geology, Stanford University.

MASON, ALBERT JOHN, JR.
Chicago, Illinois.
Graduate Student in Mining and Metallurgy, Stanford University, 1920—

MASON, HAROLD FORBES: 1915-1916. Los Angeles, California.

*Masters, A. R.: 1919—
Portland, Oregon.
Student in Geology, Stanford University.

MASTERS, EDWARD WILBUR: A. B. Geology and Mining, 1919. 675 East Madison Street, Portland, Oregon. Midwest Refining Co., Salt Creek, Wyoming; Montebello Oil Co., Fillmore, California, 1921—

*MATTEI, ALBERT CHESTER: 1913-1917. Los Olivos, California.

*MATTHEWSON, ARTHUR ADELBERT: A. B. Geology and Mining, 1908.

Coronado, California.

Manager, J. A. Matthewson Grocery Co., Coronado, California, 1908—

*MAYREIS, LOUIS JOHN: A. B. Geology and Mining, 1907.

Poderosa Mining Co., Calahuasi, Chile;
Tanalyk Mine, Southern Urals, Russia, 1912;
Commission for Relief in Belgium, Rotterdam, 1916;
Assistant Resident Manager, Burma Mines, Ltd., Nantu, Burma, 1916;
Resident Manager, Burma Mines, Ltd., Jamshedpur, India, 1918—

*Means, John Harrison: A. M. Geology and Mining, 1892.

Room 3533 Equitable Building, 120 Broadway, New York City.

Naraguta, Bautchi Province, Northern Nigeria, Africa, 1910–1911;

Mawchi via Toungoo, Burma, 1913—

Mining Engineer. Specialty, Early Investigation of Properties.

*Meiklejohn, David Forbis: (m) A. B. Chemistry, 1900.

50 Postita, Guanajuato, Mexico.
Assayer, Keystone Mine, California;
General Manager, Wilson Mining Co., Oregon;
Superintendent, Guanajuato Amalgamated Gold Mining Co.;
Manager, Montana and Mexico Mining and Milling Co., La Luz, Guanajuato, Mexico;
Chief Engineer, Lexington, United Western, Nellie, Oatman Golconda Mining Co.,
Oatman, Arizona;
Care A. M. Strong, Union Oil Bldg., Los Angeles, California.

*Melcon, Zenas K.: A. B. Geology and Mining, 1917.
Kingsburg, California.
With Nyman Consolidated Mines Co., Tuolumne County, Califosnia, 1917-1918;
Ranching, Kingsburg, California.

*Melczer, Edward A.: A. B. Geology and Mining, 1910.
Phoenix, Arizona.
President, Stanford Section, G. M. S. A. U., 1910;
Wholesale Grocer, Box 1374, Phoenix, Arizona.
Treasurer, The Melczer Co., Wholesale Grocers.

*Menke, John Henry: (m) A. B. Geology and Mining, 1910.

Maricopa, California.

Resident Geologist, Kern Trading and Oil Co., Kerto, California, 1916-1919;

Resident Geologist, Fuel Oil Department, Southern Pacific Co., Kerto, California, 1919.

**Merriam, John C.:
2401 Bowditch Street, Berkeley, California.
Professor, Paleontology and Historical Geology, University of California;
President, Carnegie Institution of Washington, Washington, D. C.

*Merrill, Charles White: 1919— 1285 Summit Avenue, Pasadena, California. Student in Geology, Stanford University.

*Merritt, Floyd Calhoun: A. B. Geology and Mining, 1910.

1560 Sacramento Street, San Francisco, California.

Geologist with Anaconda Copper Co., Butte, Montana, 1910-1912;
Geologist with Caribbean Petroleum Co., Venezuela, S. A., 1912-1913;
Engineer with California Highway Commission, 1914-1916;
Superintendent, Ramshorn Mine, Challis, Idaho, 1917-1919;
Student, E. O. T. S., Camp Humphrey, Virginia, 1918;
Engineer for W. J. Loring, 1920-1921;
Elliott Oil Well Core Drilling Co.;
Elliott & Merritt, Consulting Geologists, 1016 California Bldg., Los Angeles, California.

MEYER, LELAND EDWARD: 1918— Stanford University, California. Student in Geology, Stanford University.

MILLER, EDWARD FLOYD: A. B. Geology, 1920.

Cordell, Oklahoma.

Assistant Geologist, Empire Gas & Fuel Co. of Kansas, summer, 1917;

Assistant Geologist, Roxana Petroleum Co. of Texas, September, 1917 to June, 1918;

Geologist, Roxana Petroleum Co. of Texas, June, 1918, to August, 1918;

Geologist, Empire Gas & Fuel Co., December, 1918, to September, 1919;

Field Geologist, Associated Oil Co., Laramie, Wyoming, 1921;

Assistant Geologist, Pacific Oil Co., San Francisco, California, 1922.

*MILLER, JAMES IRVIN: 1906-1910.
475 Bartolome de la Capital, Buenos Aires, Republica Argentina, S. A.,

*MILLER, WILLIAM JOHN: B. S. Pacific, 1900; Graduate Geology, Stanford, 19001902; M. S. Pacific 1902; Ph. D. Johns Hopkins, 1905.
Instructor, Geology and Chemistry, College of the Pacific, 1900-1903;
Field Assistant, Maryland Geological Survey, 1904;
Professor, Geology and Mineralogy, Hamilton College, Clinton, New York, 1905-1914;
Field Assistant, U. S. Geological Survey, 1905-1906;
Geologist, New York Geological Survey, 1907;
Professor, Geology, Smith College, Northampton, Massachusetts, 1914—

*MILLIKIN, PAUL HYNES: 1918— Los Angeles, California. Student in Geology, Stanford University.

*MILLS, LOUIS DAVID: A. B. Geology and Mining, 1901. 121 Second Street, San Francisco, California. Consulting Metallurgist, The Merrill Co.

*MINSHALL, FRANCIS EDWARD: 1918— 450 So. 2nd Street, San Jose, California. Student in Geology, Stanford University.

*MITCHELL, DEANE PRESCOTT: (m) A. B. Geology and Mining, 1896.
7 York House, Kensington, London, W., England.
Manager, East Murchison United, Ltd., 1897-1899;
General Manager, Bewick, Moreing & Co., New Zealand, 1899-1903;
General Manager, Bewick, Moreing & Co., Melbourne, Australia. 1903-1910;
Director, Siberian Supply Co., Ltd.;
Consulting Mining Engineer, 1910—
Pinners Hall, Austin Friars, London, E. C.

*Monroe, Reginald Allan: A. B. Princeton, 1916, 1918-1919. Milo, Maine.

Moody, Irwin Walter: 1920— San Jose, California. Student in Geology, Stanford University.

*Moore, Neil Preston: A. B. Chemistry, 1914; A. M. Chemistry, 1915; Ph. D. Chemistry, 1921.

564 Hamilton Avenue, Palo Alto, California.

Graduate Student in Chemistry and Economic Geology, Stanford University, California.
1914-1916;
With Moludito Corporation, 566 Commercial St., San Francisco, California.

*Moore, Roy: 1894-1896.
549 37th Street, Oakland, California.
President, Stanford Geological Club, 1895-1896;
Consulting Engineer, Geology and Mining.

*Moran, Robert Breck: (m) A. B. Geology, 1907. Berkeley, California. Cable address, "Morpet," San Francisco. President, Stanford Section, G. M. S. A. U., 1906; Superintendent, Pennmont Gold Mining Co., Martin, Montana, 1906; Assistant Geologist, Southern Pacific Railroad Co., 1907; Associate Geologist, Associated Oil Co., 1908-1910; Geologist, Standard Oil Co. of Californ,a, 1910-1911; Consulting Geologist and Engineer, 1911-1915; California State Mining Bureau; Deputy State Oil and Gas Supervisor, Los Angeles District, 1916-1917; Consulting Geologist and Engineer, 1917—724 South Spring Street, Los Angeles, California.

Moreno, Joseph Ernest: 1915-1921; A. B. Geology, 1921. 1712 Grand Avenue, San Pedro, California. Student in Geology, Stanford University.

*Morgan, Harry Joseph: A. B. Geology and Mining, 1914; M. S. University of

Utah, 1915.

527 West Fiftieth Street, Los Angeles, California.
Fellow, Metallurgical Research, University of Utah, 1914-1915;
Metallurgist, Big Indian Copper Co., La Sal, Utah, 1916-1918;
Metallurgist, Buena Vista Co., La Sal, Utah, 1918-

Morgan, Maurice Edward: 1913-1916. Bridgeport, Connecticut. Write George Lyman, care Copper Queen, Bisbee, Arizona.

MORRISON, HARRY LEE: 1899-1904. Monte Vista, Colorado.

 Motz, Ralph Leslie: (m) 1902-1907. Box 2271, Bisbee, Arizona.
Engineer and Assayer, Smith & Ziesemer, Bisbee, Arizona, 1907-1921;
United States Mineral Surveyor, 1909-1921.

MULRYAN, HENRY: 1920-Beresford, San Mateo County, California. Student in Geology, Stanford University.

**MURGOCI, GEORGE: Ph. D. University of Munich, 1900; Graduate Physics and Chemistry, Bucarest, 1895. Bucuresti, Româneo. Professor of Mineralogy and Petrography, Ecole Polytechnique, Bucuresti, Rumania.

*Murray, Paul: 1919-Stanford University, California. Student in Geology.

*Musser, Edgar Hale: A. B. Geoolgy, 1920.
900 Waverley Street, Palo Alto, California.
California State Mining Bureau, Taft, California, 1920;
Production Department, Standard Oil Co., Taft, California, 1921-1922;
Graduate Student in Mining and Metallurgy, Stanford University, 1922—

Myers, Laurence Brouillette: 1919-Stanford University. Student in Geology, Stanford University.

*NARAMORE, CHESTER: (m) A. B. Geology and Mining, 1903. AMORE, CHESTER: (m) A. B. Geology and Mining, 1903.

Care Sinclair Consolidated Oil Corporation, 45 Nassau St., New York. President, Stanford Section, G. M. S. A. U., 1902–1903;

Field Assistant, State Mining Bureau, San Francisco, California, 1903–1906;

Statistician, U. S. Geological Survey, Denver office, 1906–1908;

Statistician, U. S. Geological Survey, San Francisco office, 1909;

Field Geologist and Oil-lease Superintendent, Consolidated Oil Lands Co., 1909–1914;

Manager, Calgary Petroleum Products, Ltd., Calgary, Alberta, Canada, 1914–1915;

Superintendent, Montebello Oil Co., Fillmore, California, 1915;

Deputy State Oil and Gas Supervisor, Taft, California, 1915–1916;

Chief Petroleum Technologist, U. S. Bureau of Mines, 1917–1919;

American Member, Inter-Allied Petroleum Conference, London and Paris, 1918;

Export Manager, Union Petroleum Co., Philadelphia, 1919—

Exploration Work, Sinclair Consolidated Oil Corporation, New York City, 1920. *Nash, Howard Frank: (m) A. B. Geology and Mining, 1910.
60 Wall Street, New York City. Foreign Dept. Henry L. Doherty & Co. Geologist, Caribbean Petroleum Co., Venezuela, 1912-1914; Geologist, Continental Oil and Gas Co., 1916; Geologist, Empire Gas and Fuel Co., 1918-1919; Geologist, Henry L. Doherty & Co., Colombia, 1919; Chief Geologist, Henry L. Doherty & Co., Mexico, 1920; General Manager, Compania de Cas y Combustible "Imperio," S. A., and allied companies. Apartado 285, Tampico, Mexico, 1920—

NEAL, MALCOLM ALLAN: 1906-1908.
50 Pemberton Place, San Francisco, California.

NELSON, FRITHJOF WILLIAM: 1919— 750 Channing Avenue, Palo Alto, California. Student in Geology, Stanford University.

*Nelson, Wilbur A.: B. S. Vanderbilt, 1910; A. M. Geology, Stanford, 1915.
Capitol Annex, Nashville, Tennessee.
Assistant, Chemical Laboratories, Vanderbilt University, 1907-1910;
Chemist, Tennessee Packing Co., Nashville, Tennessee, 1910;
Assistant Geologist, Tennessee Geological Survey, 1910-1914, intermittent;
Assistant Geologist, Virginia Geological Survey, 1912;
Economic Geologist, N. C. & St. L. Railway, Nashville, Tennessee, 1914-1916;
Mining Geologist, Secretary and Treasurer, Paga Mining Co., Cartersville, Georgia, 1916-1918;
President, Monteagle Assemble, 1921;
State Geologist, Tennessee Geological Survey, Nashville, Tennessee, 1918-

NEUNER, CLARENCE MARTIN: 1914-1916.

Los Angeles, California.

Vice-President, Neuner Corporation, Los Angeles, California.

*Newsom, John Branner: 1916-1919; 1921-1922; A. B. Geology, 1922.

1129 Cowper Street, Palo Alto, California.

Assisting in Investigation of Properties in Federated Malay States, Yukon Gold Co..

1919-1920.

Student in Geology, Stanford University.

**Newsom, John Flesher: (m) A. B. Indiana University, 1891; A. M. Geology and Mining, 1892; Ph. D., 1901.

1129 Cowper Street, Palo Alto, California.
Assistant Geologist, Arkansas Geological Survey, 1891–1893;
Instructor and Assistant Professor of Geology, Indiana University, 1895–1898;
Assistant Professor of Mining, Stanford, 1899–1901;
Associate Professor, Stanford University, 1901–1909;
Professor of Mining, Stanford University, 1909–1910;
Consulting Geologist and Mining Engineer, 914 Hobart Building, San Francisco, California, 1910—

Newton, Ford W.: 1918— Care S. O. Co., P. L. Department, Taft, California. Student in Geology, Stanford University.

†NICHOLS, PERCY E.: 1900-1902. Died March 12, 1902.

NICKLE, HAROLD ALBERT: 1920— Glendora, California. Student in Geology, Stanford University.

NICKLE, NEIL CLARK, 1921—
Glendora, California.
Student in Geology, Stanford University, 1922—

*NIMS, CHARLES BREWSTER: (m) A. B. Geology and Minning, 1907 Raymond, Washington. Assistant Engineer, Yukon Gold Co.; Civil and Mining Engineer. NISBET, EUGENE G.: 1920-Upland, California. Student in Geology, Stanford University.

*NISBET, JOHN McHENRY: A. B. Geology and Mining, 1916. Upland, California.

Office Geologist, Empire Gas and Fuel Co., Bartlesville, Oklahoma.

Nissen, Roger Christian: 1901-1905. Hemet, California.

NIX, SAMUEL AUBREY: 1918-1919. 844 Laurel Avenue, Pacific Grove, California.

*Nixon, Carey H.: A. B. Geology, 1916. Boise, Idaho.

Junior Member of Johnson and Nixon, Attorneys at Law; 112 N. Sixth Street, Boise,

*Nobs, Frederick William: (m) A. B. Geology and Mining, 1905.

Redwood City, California.

President, Stanford Section, G. M. S. A. U., 1905;
Engineer, Standard Consolidated Mining Co., Bodie, California, 1905–1906;
With Anglo-Continental Gold Syndicate, 1906;
Manager of Santa Maria Mines, Ltd., Zacatecas, Mexico;
Manager, La Leonesa Mine, Matagalpa, Nicaragua, Central America, 1911–1913;
Consulting Geologist and Engineer, 1914–1915;
Engineer, Empire Mine, Grass Valley, California, 1915–1916;
Assistant Manager, 1916—

†*Nobs, Walter Rudolf: 1909-1911; died August, 1913.

*Nolan, EDWARD DANA: 1907-1911.

1211 Alaska Commercial Building, San Francisco, California. Geologist, Associated Oil Co., California, 1911; Geologist, General Asphalt Co., Trinidad, 1912-1914; Geologist, Canadian Montana Co., Alberta and Montana, 1914-1915; Geologist, Shell Co. of California, California, 1916-1919; Chief Geologist, General Petroleum Corp., California, 1920—

†NORTH, EDMUND DAVID: (m) A. B. Geology, 1902; d. June 22, 1910.

*North, Wheeler Orrin: (m) A. B. Geology and Mining, 1904.

Guadalupe, Zacatecas, Mexico.

Assayer, Cyanide Foreman, Mill Superintendent, Engineer in Construction and Underground Work, Examining Engineer and Mine Geologist; Exposed Treasure, Mojave, 1904-1905; Tonopah Mining Co., Millers, 1905-1906; Montgomery Shoshone, Rhyolite, Nevada, 1906-1908; Goldfield Consolidated Mines Co., 1908-1910.

Manager in Borneo of United Malayan Rubber Co., Ltd., 1910-1913;
Vice-President, W. J. Bailey Co., Building Materials, San Diego, California, 1913-1915; Mill Superintendent, United Eastern Mining Co., Oatman, Arizona, 1916-1917;
Assistant General Manager, United Eastern Mining Co., Oatman, Arizona, 1917-1919;
Assistant Manager, La Fe Mining Co., Ltd., Guadalupe, Zacatecas, Mexico.

*Nutter, Edward Holt: (m) A. B. Geology and Mining, 1902.

220 Battery Street, San Francisco, California.

President, Stanford Section, G. M. S. A. U., 1901-1902;

Assistant Superintendent, Standard Consolidated Mining Co., Bodie, California, 1904-1905;

Superintendent, Standard Consolidated Mining Co., Bodie, California, 1906;

Assistant General Superintendent, Liberty Bell Gold Mining Co., Telluride, Colorado, 1906-1907;

Superintendent, Liberty Bell Gold Mining Co., Telluride, Colorado, 1907-1909;

Engineer, Minerals Separation, Ltd., London, England, 1910-1911;

Chief Engineer, Minerals Separation, American Syndicate, Ltd., London and San Francisco, 1911-1916;

Chief Engineer, Minerals Separation, North America Corporation, San Francisco and New York, 1916-Chief Engineer, M New York, 1916-

OBRIKAT, VICTOR: 1914-1915. San Diego, California. Manager, Obrikat-Meyer Fur Co., San Diego Store; Eight months with U. S. Air Service, 1918. *OCHSNER, WASHINGTON HENRY: (m) A. B. Geology, 1909.
Geologist, California Academy of Sciences; Galapagos Expedition, 1905-1907;
Petroleum Geologist, Associated Oil Co., 1907-1908;
Petroleum Geologist, Associated Oil Co., 1908-1909;
Geologist and Field Manager, Medallion, Columbus, Midway, West American Oil Co.'s
1909-1915;
Production War Minerals, 1915-1916;
Geologist Ecuadorian Development Co., 1916-1917;
Vice-President and General Manager, Colorado Shale and Petroleum, 1918;
Vice-President and General Manager, Cocidental Petroleum Co., 1922;
Consulting Petroleum Geologist, 1918—
68 Post St., San Francisco; 919 Chapman Building, Los Angeles, California.

*Oliver, H. M.: 1915-1918; A. B. Geology, 1921. Campbell, California. Lieutenant-Aviator, 1918-1919;

Olmstead, William: 1918-1742 Beacon Street, Los Angeles, California. Student in Geology, Stanford University.

OLMSTED, CLARENCE EDWARD: 1910-1913. 2025 Ocean View, Los Angeles, California.

*Olshausen, Bruno Adolphus: A. B. Chemistry, 1902. 328 American Bank Building, Los Angeles, California.

O'NEILL, PAUL MEYER: 1914-1915. Pasadena, California.

*Osborne, Clarence Bristol: (m), A. B. Geology and Mining, 1909. 749 Race Street, Denver, Colorado.
President, Stanford Section, G. M. S. A. U., 1907–1908;
Assayer, Union Consolidated Gold Mines, 1902–1904;
Field Surveyor. City of Los Angeles, 1904–1906;
Consulting Geologist and Testing Engineer, Los Angeles, California, 1909–1912;
Chief Geologist, California State Highway Commission, 1912–1918;
Petroleum Geologist, Mid-West Refining Co., Denver, Colorado, 1918–1920;
Chief Geologist, Mid-West Refining Co., Denver, Colorado, 1920—

*PACKARD, HENRY JESSUP: A. B. Geology and Mining, 1911. ARD, HENRY JESSUP: A. B. Geology and Mining, 1911.

1106 First National Bank Building, Denver, Colorado.

Millman, La Leonesa Mine, Nicaragua, 1911-1912;
Geologist with Caribbean Petroleum Co., Venezuela, 1912-1914;
Metallurgist, Pioneer Gold Mine, Towle, Placer County, California, 1914-1915;
Chemist, Merrill Metallurgical Co., San Francisco, California, 1916;
Geologist, Hetch-Hetchy Aqueduct, 1916-1918;
Geologist, Pacific Tungsten Co., Mill City, Nevada;
Geologist, Midwest Refining Co., Denver, Colorado, 1920—
Geologist with T. S. Harrison, Denver, Colorado.

PACKARD, MYRON: 1918-1920. 1730 West Forty-first Street, Los Angeles, California.

Assistant Engineer, Kerckhoff Dam, San Joaquin Light and Power Co., 1920;
With Organization Builders, 400 Central Building, Los Angeles, California.

*Palmer, R. H.: 1918-1920. A. B. Adrian College, 1906. A. M. University of Utah, 1909. J. D. University of Chicago, 1912. Seattle, Washington.
Assistant District Attorney of Idaho, 1914;
Lieutenant, Field Artillery, 1918;
Graduate Student, Stanford University, 1919–1920;
Professor of Paleontology, University of Washington, 1920—
Chief of Geologic Commission of Mexico.

PARK, HUGH, JR.: 1903-1906. Superintendent, Nipissing Mining Co., Ltd., Cobalt, Ontario, Canada, 1908. *PARK, ROBERT NYM: A. B. Geology and Mining, 1904.
99 Clinton Street, Muskegon, Michigan. Schmidd Street, Muskegon, Michigan.

Peregrina Mina y Anexos, Guanajuato, Mexico, 1904;

Shift Foreman, San Francisco Mill, Pachuca, Mexico, 1904;

Field Assistant to Professor J. C. Branner, Indian Territory, U. S. A., 1905;

General Examiner of Mining Properties, Chile and Bolivia, 1907;

Operator, Chuguiaguila Gold Placer Mine, 1910–1913.

PARKER, MELVIN FRANCIS: 1918-Oakland, California. Student in Geology, Stanford University.

*PARKIN, WILLIAM METCALF: (m) A. B. Geology and Mining, 1901; A. M. Colum-

bia University School of Mines, 1902.

1414 Park Building, Pittsburgh, Pennsylvania.

President, Stanford Section, G. M. S. A. U., 1900-1901;

Member Eng. Soc. W. Pa.

Engineer for Hoffman Process Co., Chemical Engineers;

Engineer of Coal Properties;

Vice-President and Director, Four States Coal Co., 5577 Hampton Street, Pittsburgh, Pa.

*PARMALEE, HARVEY WRIGHT: (m) A. B. Geology and Mining, 1913. Santa Barbara, California. Engineer, Yukon Gold Co., Dawson, Yukon Territory, Canada, 1913-1918; With City Engineer, Santa Barbara, California, 1918-

*Parsons, Benjamin Everett: (m) A. B. Geology, 1911.

Highland, California. Ariginand, Cantornia.

President, Stanford Section, G. M. S. A. U., 1910-1911;
Assistant Geologist, Southern Pacific Railroad Co., San Francisco, California, 1911-1914;
Geologist, General Petroleum Corporation, 1914-1918;
Superintendent, General Petroleum Corporation, Midway, Sunset, Belridge and Lost Hills
Fields, 1918-Fields, 1918— Box "D," Taft, California.

*Parsons, Clarence Wilbur: 1913-1916; 1917-1918.

San Francisco, California.

Field Geologist, Pacific Oil Co., San Francisco, California, 1920;
Field Geologist, Pacific Oil Co., Bakersfield, California, 1921;
Assistant Engineer, Bureau of Mines, Bakersfield, California, 1922.

*Patterson, Lee: 1909-1913. 206 Lumber Exchange Building, Portland, Oregon. Mining, 1914-1916; Business, 1917; Army, 1918; Highway Construction, 1919-1920.

PATTERSON, WILLIAM JOHN: 1898-1903.

Care Midvale Steel Company, Mexico City, D. F.

PAUL, EUGENE ROBINSON: 1919-Oakland, California. Student in Geology, Stanford University.

*Paulsen, Jasper William, Jr.: 1912-1917. 343 Sansome Street, San Francisco, California. Geologist, Shell Company of California.

Paulson, Arthur Bernard: 1916-1917. Lakeview, Michigan.

*Peake, Alonzo William: (m) A. B. Geology and Mining, 1912.
With Montebello Oil Co., Fillmore, California, 1912-1916;
With Midwest Refining Co., Casper, Wyoming, 1917;
Superintendent of Gas Plants, The Midwest Refining Co., Casper, Wyoming, 1919—
Chief Engineer of Field Division, The Midwest Refining Co., Casper, Wyoming, 1920.

*Peckham, Arthur Bixio: A. B. Geology and Mining, 1912; E. M. 1914.

1668 Grove Street, San Francisco, California.

Assayer and Chemist, 1912-1913; Cyanide Foreman, 1913-1914;
Minas del Tajo, Rosario Mining Co., Rosario, Estado de Sinaloa, Mexico;
Assayer, San Sebastian Mine, San Sebastian, Salvador, Central America, 1914;
Cyanide Foreman, Hormiguero Mine, Comacaran Gold Mining Co., 1914;
Cyanide Superintendent with Comacaran Gold Mining Co., Hormiguero, Salvador,
Central America, 1915-1916;
Engineer with Comacaran Gold Mining Co., 1916;
Vannerman with Dutch-Sweeney Mine, Tuolumne County, California, 1916;
Assayer with Dutch-Sweeney Mine, Tuolumne County, California, 1916;
Engineer for Dutch-Sweeney Mine and Calaveras Consolidated Syndicate, 1917-1919;
Engineer, Associated Oil Co., 1919;
Mining Superintendent, Associated Oil Co., Shoshone, Inyo County, California, 1920-

*Pehrson, Elmer Walter: (m) A. B. Geology and Mining, 1918; E. M. 1920
268 Walnut Street, San Jose, California.
President, G. and M. Society, 1919;
Assistant Testing Engineer, Anaeonda Copper Mining Co., 1920-1921;
Solution Operator, Experimental Leaching Plant, Inspiration C. C. Co., Miami, Arizona, 1922-

Pellas, Silvius Frederick: A. B. Geology and Mining, 1914. Care Pellas & Co., Granada, Nicaragua, Central America.

*Pemberton, John Roy: (m) A. B. Geology, 1909. Twin Peaks Boulevard, San Francisco, California.
Field Assistant, Geology, Stanford University, 1908-1909;
Temporary Field Geologist, U. S. Geological Survey, 1908;
Instructor, Stanford University, 1910;
Ministero de Obras Publicas, Argentine Republic, 1910-1913;
Ministero de Agricultura, Argentine Republic, 1913-1915;
With Ventura Refining Co., Colton, California, 1915-1916;
Consulting Geologist, Tulsa, Oklahoma, 1917;
Consulting Geologist, Louisville, Kentucky, 1917-1918;
Consulting Geologist with C. L. Severy, 729 Kennedy Bidg., Tulsa, Oklahoma, 1918-1919;
Chief, Operating Department, Oil Issues Co., Tulsa, Oklahoma, 1920-1922.

*Perkins, Walter G.: 1919-Box 945, Stanford University, California. No. 1, London Wall Bldgs., London, E. C. 2, England.

Perry, Samuel S.: A. B. 1915; C. E. 1920.

Los Angeles, California. Department of Petroleum Gas, California State Mining Bureau, Los Angeles.

*Peterson, Clarence Jennings: A. B. Geology and Mining, 1910.

725 Kennedy Building, Tulsa, Oklahoma.
Assistant Surveyor, Tonopah Mining Co., Tonopah, Nevada, 1910-1912;
Geologist with New York and Bermudez Co.;
Port of Spain, Trinidad, British West Indies, 1912-1913;
Examining Mining Engineer under J. E. Spurr, Exploration Dept., Tonopah, Nevada, 1913-1916;
Petroleum Geologist, Empire Fuel and Gas Co., 1916;
Petroleum Geologist, Pemberton and Severy, 1917-1920;
Consulting Geologist with C. L. Severy, 1921.

PHILLIPS, MERRILL N.: 1921— La Habra, California. Student in Geology, Stanford University, 1922.

PIGOTT, CHETWYND M. DE R.: 1919. San Jose, California. Standard Oil Co., San Jose, California.

PIGOTT, PAUL RICHARD: 1919-Seattle, Washington. Student in Geology, Stanford University.

PIKE, KELTON W.: 1916-1920. 102 Olive Street, Modesto, California. PLACE, RICHARD GEORGE: 1914-1915.

1105 Garfield Avenue, Pasadena, California. Consulting Mining Engineer.

Plate, H. Robinson: 1895-1898.

Hobart Building, San Francisco, California. Mining Engineer.

†Poindexter, Henry Thyrie: (m) A. B. Geology and Mining, 1897.

POLLARD, GLENN EUGENE: 1919-

Spokane, Washington.

Student in Geology, Stanford University.

†*Pomeroy, Ernest Younger: A. B. Geology and Mining, 1905; died August, 1909.

Porter, Lawrence E.: 1918-1921; A. B. Geology, 1921. Raton, New Mexico.

*Potter, John Alfred, Jr.: A. B. Chemistry, 1919; A. B. Mining, 1922. Los Angeles, California. Assistant in Assaying, Stanford University, 1919;

Potter, William Dunning: 1897-1898

Adjutant, General's office, Honolulu, T. H. Adjutant, General's office, Honolulu, T. H.
Enlisted Soldier, Spanish-American War, 1898–1899;
First Licutenant, Hawaiian Provisional Battalion, 1900;
Deputy Superintendent of Schools, Philippine Islands, 1901–1902;
Supervising Chief Sanitary Engineer, Philippine Islands, 1902–1903;
Vice-President and Manager, W. D. Potter Co., 1903–1906;
President, California and Lake Improvement Association, 1906–1909;
Editor and Manager of various publications, 1906–1917;
Major of Infantry, May, 1917, to Dec., 1918;
Constructing Quartermaster, U. S. Army, Alcatraz, California, 1918–1920;
Lieutenant-Colonel, Commanding 1st Hawaiian Infantry, Dec., 1920 to Feb., 1921;
Adjutant General, Territory of Hawaii, Feb. 1921—

POULSEN, FRANK E.: A. B. University of Illinois, 1919.

Chicago, Illinois.
Exploration Work, West Indies South American Gulf Corp., 1919-1920;
Assistant Field Geologist, Gypsy Oil Co., Tulsa, Oklahoma, 1920-1921;
Graduate Student in Geology, Stanford University, 1921—

*Pratt, Francis Sitwell: A.B. Chemistry, 1913; Chemical Engineer, 1914. Ontario, California. Assistant in Assaying, Stanford, 1913-1914; Engineering Department, Pacific Borax Co., Bayonne, New Jersey, 1916—

*Prescott, Basil: (m) A. B. Geology and Mining, 1908; A. M. 1915.

LOrdsburg, New Mexico.

Mining Geologist to Butters Mines in Salvador and Mexico, 1908-1909;
Superintendent, Butters Potosi Mines Consolidated, 1909-1910;
Mining Geologist, American Smelting and Refining Co., (Mexican Division), 1910-1911;
Superintendent, Matehuala Unit, American Smelters Securities Co., Superintendent,
Cobriza Unit. Cia Metalurgica Nacional, Matehuala, San Luis Potosi, Mexico, 1911-13;
Chief Geologist and Examining Engineer, American Smelting and Refining Co., and
allied interests (Mexican Division), 1913;
Geologist and Examining Engineer, Rio Tinto Copper Co., Terrazas, Mexico; Concheno Mining Co., Chihuahua, Mexico; Cusi Mexicana Mining Co., Cusihuirachi,
Mexico; San Toy Mining Co., Chihuahua, Mexico; "85" Mining Co., Lordsburg,
New Mexico; Lawrence Mining Co., Lordsburg, New Mexico; and consulting work,
1916-1919;
Operating Last Chance and Viola Mines, 1919—

†*Preston, Archibald Edward: (m) A. B. Geology and Mining, 1905; died in service, October, 1918.

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*PRICHARD, WILLIAM ANTHONY: (m) A. B. Geology and Mining, 1908.

Superintendent, Keystone Consolidated Mining Co., California, 1898–1901; .

Manager, Lake Views Consola, Ltd., Australia, 1901–1902;
Representative, Bewick, Moreing & Co., West Australia, 1902–1904;
Consulting Engineer, London, 1904–1905;
Representative, Anglo-Continental Gold Syndicate in Mexico, 1906–1909;
Consulting Engineer, Oroville Dredging Co., Colombia, South America, 1913—
Consulting Engineer, Apartado 104, Barranquilla, Colombia, S. A.

*PROUT, FRANKLIN STANTON: (m) A. B. Geology and Mining, 1912.

Box 191, Pawhuska, Oklahoma.
Geologist with Caribbean Petroleum Co., Venezuela, 1912–1913 and 1914;
Geologist with Carter Oil Co., 1916–1917;
Geologist With Pemberton & Severy, 1918;
Private, U. S. A., 1918;
Geologist With Pemberton & Severy, 1919;
Geologist (Prout & Ryan, Geologista), 1920;
Assistant Chief Geologist, Douglas Oil Co., 1921–1922.

PURCELL, JULIUS WILLIAM: 1918.

4550 18th Ave. NE., Seattle, Washington.

Student in Geology, University of Washington.

Student in Geology, University of Washington.

*PURDUE, Albert HOMER: (m) A. B. Geology, 1893; LL D. University of Arkansas, 1912; died November, 1917.

*PYLE, KENNETH DAINGERFIELD: (m) A. B. Metallurgy, 1915.

Care W. R. Pyle, Gilroy, California.

Assistant, Metallurgy, Stanford University, 1913–1915;
Assayer, Seven Troughs Coalition Mining Co., Seven Troughs, Nevada, 1915–1916;
Draitsman, the Dorr Co., Denver, Colorado, 1916;
Millman, the Homestake Mining Co., Lead, South Dakota, 1918—
Engineering Staff, Homestake Mining Co., Lead, South Dakota, 1919—

Engineering Staff, Homestake Mining Co., Lead, South Dakota, 1919—

Engineering Staff, Homestake Mining Co., Lead, South Dakota, 1919—
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QUINN, ALBERT ALLAN: 1897-1898.

Palo Alto, California. U. S. P. O. Civil Service Employe at Stanford University, California.

*RADCLIFFE, THOMAS DREW: A. B. Geology, 1920.
1814 Avenue K, Birmingham, Alabama.
In Service, June-September, 1918;
Pacific Coast Steel Chemist, Inspector, 1921;
Geologist, Pacific Gas & Electric Co., 1921;
Graduate Student in Mining and Metallurgy, 1922—

RAICK, JULIAN OSCAR M. J.: 1920; E. M. Stanford 1922.

Liege, Belgium.
Student, University of Liege, Belgium, 1910-1914, 1919-1920;
World War, 1914-1919;
Ingenieur civil des Mines, 1920. A. I. Lg.
Societe anonyme des Charbonnages de Werister, 1920; A. I. M. E. 1922;
Graduate Student, Mining and Metallurgy, Stanford University, 1920-1921;
Mining and Metallurgical Survey in the United States and Canada, 1921-1922;
Captain of Reserve, Belgian Field Artillery, Chev. O. de la C., British M. C., Cr. G.
Belge.

*Randall, Charles Alfred: (m) A. B. Geology and Mining, 1908; E. M. 1910.

South Porcupine, Ontario, Canada.

Member, A. I. M. E.
Engineer, Bully Hill Copper Mining and Smelting Co., California, 1909;
Superintendent, Nipissing High Grade Ore Mill, Nipissing Mining Co., Cobalt, Ontario, 1911-1913;
Engineer and Metallurgist, Tough Oakes Gold Mines, Ltd., 1913-1914;
Mill Superintendent and Metallurgist, Tough Oakes Gold Mines, Ltd., 1915;
Metallurgical Engineer, Holquin Exploration Co., Holquin, Cuba, 1916;
Manager, Dome Lake Mining and Mill Co., Ontario, Canada, 1918-1920;
Chief Mining Engineer, Dome Mines, Ltd., South Porcupine, Ontario, Canada.

RAWLES, WESLEY MOCK: 1905-1910. Ukiah, California. RAY, BHUPENDRA NATH: B. S. Calcutta, 1908; A. M. Stanford, 1913.
18-1 Beadon Street, Calcutta, India.

Metallurgist, Chicago, Illinois.
Calcutta. India;
Member A. I. M. E., Member Am. Electro-Chemical Society, Metallurgist, 18-1 Beadon St., Calcutta, India, or "The Mancha," Karmator, E. I. R., Behar, India; Joint Proprietor and Chief Engineer, Midland Minerals Co., Calcutta, India.

*RAY, JAMES CHANDLER: (m) A. B. Geology and Mining, 1914; A. M. 1914.

Palo Alto, California.

Consulting Mining Geologist.

Member A. I. M. E.

Captain, 603d Regiment, Engineers, U. S. A., 1918-1919;

Mining Geologist, General Manager, Bellevue Mining Co., Ltd., 806 Union Bank Bldg.,

Winnipeg, Manitoba, Canada.

REARDON, FREDERICK J.: 1915-1917.

Guanajuato, Mexico.

Reed, John Defrees: 1898-1900.

1143 N. Mariposa Street, Los Angeles, California. Sales Manager, Southwest Hardware Co., 335-37 E. 3rd Street, Los Angeles, California.

REED, MYRON CARLTON: 1920-

Denver, Colorado. Student in Geology, Stanford University.

*Reeves, Frank Wixon: (m) A. B. Geology and Mining, 1916.

San Bernardino, California.

Division Geologist, Empire Gas and Fuel Co., of Texas, 1916—Dallas, Texas.

*Rehm, Francis Edward: A. B. Geology and Mining, 1916.

Sonora, Cailfornia. Engineer, Shell Oil Co., Oil Fields, California, 1916—

*Reinhold, Lisle Wainwright: 1917—

Montrose, Colorado. Student in Geology, Stanford University.

*Remington, Arthur E.: A. B. Geology and Mining, 1913.

208 Flower Avenue, Watertown, New York.

Assayer and Sampler, Babilonia Mine, Chontales, Nicaragua, Central America, 1913–14;
Assayer and Sampler, La Leonesa, Matagalpa, Nicaragua, Central America, 1914–1915;
Mine Surveyor and Engineer, La Leonesa, Matagalpa, Nicaragua, Central America, 1915–1916;
1915–1916;
1917–1917.

Graduate Student, 1916-1917; Alvarado Mine and Mill Co., Parral, Chihuahua, Mexico, 1918--With Compania Mexicana de Combustible, S. A., Apartado 48, Tampico, Mexico, 1921--

RENICK, ABBOTT FRANK: 1920— New York, N. Y. Student in Geology, Stanford University.

*Repass, Merle Marion: 1917-1921; A. B. Geology, 1921.

Hughson, California. Graduate Student in Geology, Stanford University, 1922.

*Rhodes, R. O.:

Stanford University.

Field Geologist, Companias Del A. G. W. I., S. A., Tampico, Mexico, 1920-1921;
Student in Geology, Stanford University.

*RHYNE, HOMER: 1903-1908.

Geologist, American Petroleum Co., Coalinga, California; Care Stage Co., Taft, California.

RIBBINS, GEORGE PERCIVAL: 1916-1918.
In U. S. Service, Camp Hospital 33, Base Section 5, A. E. F., 1918-1919.

*RICE, EDWARD WALDO: A. B. Chemistry, 1909. 25 Storey Street, Santa Cruz, California.
Assistant in Assaying, Stanford University, 1908-1909;
Chemist, Santa Cruz Portland Cement Co., Santa Cruz, California, 1909-RICE, JOHN AINSWORTH: 1893-1897. JOHN AINSWORTH: 1893-1897.

414 Hobart Building, San Francisco, California.

Miner, British Columbia and Idaho, 1897-1898;

Assayer and Mining Engineer, Cochiti Gold Mining Co., Bland, New Mexico, 1898-1899,
Superintendent, Navajo Gold Mining Co., Bland, New Mexico, 1899-1900;
Assistant Superintendent of Construction, Douglas Reduction Works of the Copper
Queen Consolidated Mining Co., Douglas, Arizona, 1900-1903;
Independent exploration in Sonora and Chihuahua, Mexico, and development for the
Guayanopa Mining Co., 1903-1905;
Consulting Mining Engineer, El Paso, Texas, 1905-1912;
Manager of the Pittsburgh Lorrain Syndicate and for W. L. Curry of Pittsburgh, in
Ontario, Canada, 1912-1916;
Manager as above and engaged in exploration of oil lands in Utah for the Duquesne
Association, 1916-1917;
Consulting Mining Engineer and Geologist, 414 Hobart Bldg., San Francisco, California. *RICE, JOHN BERMINGHAM: (m) A. B. Geology and Mining, 1897.
Manager, Hercules Powder Co., Chronicle Building, San Francisco, Californa. *RICE, WARREN SUMNER: A.B. Geology and Mining, 1910. 1014 Bird Avenue, San Jose, California. Mining Engineer, Columbia, Esmeralda County, Nevada; Manager, Golden Gate Consolidated Mining Co., Grass Valley, California, 1914— *RICHARDSON, REMOND W.: 1919 Washington, D. C. Student in Geology, Stanford University. †*RITER, GEORGE WASHINGTON: A. B. Geology and Mining, 1896; died August, 1916. von Ritter Rollin: 1898-1900. Durango, Colorado. *Robbins, James Clayton: (m) 1906-1909.

Granite, Oregon.

Assayer and Millman, Pittsburgh-Silver Peak Mining Co., Blair, Nevada, 1910-1911;
Foreman, Hope Mining Co., Republic, Washington, 1911-1912;
Mill Superintendent, San Poil Mining Co., Republic, Wash., 1913-1914;
Mill Foreman, Engel Copper Mining Co., Plumas Co., California, 1915-1916;
General Superintendent, United Gold Mining Co., Granite, Oregon, 1917-1918;
Vice-President and General Manager, Continental Mining Co., Granite, Oregon, 1919-*ROBERTS, MILNOR: A. B. Geology and Mining, 1899.
4501 Fifteenth Avenue, N. E., Seattle, Washington.
Instructor in Mineralogy, Stanford University, 1900–1901;
Dean of College of Mines and Professor of Mining Engineering and Metallurgy,
University of Washington, 1901—
Consulting and Mining Engineer, the Pacific Northwest, British Columbia and Alaska. *Roberts, Perry B., Jr.: 1919-1921; A. B. Geology, 1921. 250 Churchill Avenue, Palo Alto, California. Assistant, Field Geology, 1921; Assistant, Resident Engineer, Honolulu Cons. Oil Co., 1921; Address, c/o Honolulu Cons. Oil Co., Taft, California. ROBERTSON, AVERY ELLERY: 1919-San Francisco, California. Student in Geology, Stanford University. **ROGERS, AUSTIN FLINT: (m) A. B. Kansas, 1899; A. M. 1900; Ph. D. Columbia 1902. Box 81, Stanford University, California. Assistant Geologist, University Geological Survey of Kansas, 1898–1900, 1903, 1908; Assistant in Mineralogy, Kansas University, 1898–1900; Tutor in Mineralogy, Columbia University, 1902–1905; Assistant Professor of Mineralogy and Petrography, Stanford University, 1905–1910; Associate Professor of Mineralogy and Petrography, Stanford University, 1910–1919; Professor of Mineralogy and Petrography, Stanford University, 1919*Rogers, Robert Greene: 1916-1921. San Jose, California. Ensign, U. S. N. R., 1919; With Obispo Oil Co., Maricopa, California.

ROLFE, FRANKLIN: (m) A. B. Geology and Mining, 1898. 228 North Union Avenue, Los Angeles, California.

ROOK, ROSS HENTY: 1904-1906. 1443 W. 37th Drive, Los Angeles, California. Inspector of Public Works, City of Los Angeles.

*Rose, Hugh: (m) A. B. Geology and Mining, 1900.

La Mutua, 522, Mexico City, Mexico.

Manager, Tecolates Mines, Santa Barbara, Chihuahua, Mexico, 1905-1906:
Assistant General Superintendent, American Smelters Securities Co., United States and Mexico, 1906-1908;
General Superintendent, Guanajuato Development Co., Mexico, 1908-1909;
Representative in Mexico of Camp Bird, Ltd., 1909-1910;
General Manager, Managing Director, Cia de Santa Gertrudes, Mexico, 1910;
General Manager, The Mexican Corporation, Mexico, 1919—

ROSEBERRY, FRED THOMAS: (m) 1898-1903; A. B. Geology 1921.
Sycamore, Colusa County, California.
Mining Engineer, Los Quebraclas, Guatemala, Central America.

*Rosenberg, Leo M.: A. B. Geology and Mining, 1907. Twenty-First and Alameda Strets, c/o Hipolito Screen & Sash Co, Los Angeles, California.

Angeles, California.

Sampler, Ray, Arizona;
Milling, Goldfield, Nevada;
Superintendent, Inyo County, California;
Mine Examiner, Eldorado County;
Mining Engineer, Ajo Copper Co., Gila Bend, Arizona;
Engineer, Brighton, Trinidad, British West Indies;
President, Hipolito Screen and Sash Co., Los Angeles, California.

*Ross, HARRY Scott: A. B. Chemistry, 1909. Pasadena, California. Assistant in Assaying, Stanford University, 1908-1909; Superintendent, Buclimo Mine, Jolon, California, 1909-1910; Superintendent's Department, Southern California Edison Co., Los Angeles, California, 1910-1920; Right of Way Department, Southern California Edison Co., Los Angeles, California, 1921-

*Ross, John Stanley: A. B. Geology, 1917.

561 Middlefield Road, Palo Alto, California.
Geologist, Indian Territory and Illuminating Oil Co., Bartlesville, Okla., 1917-1918;
Engineers, U. S. A., 1918-1919;
Field Geologist, Southern Pacific Co., 1919;
Resident Geologist, Associated Oil Co., Coalinga, California, 1919-1921:
Geologist, Barnsdall-Foster Oil Co., Billings, Montana, 1921.
U. S. Bureau of Mines, Bartlesville, Oklahoma, 1922.

*ROUSSELOT, NORMAN AUGUSTE: 1918—
575 Sixty-second Street, Oakland, California.
Student in Geology, Stanford University.

†Runyon, John Howard: 1906-1909; died 1910.

RUSH, FREDERICK WINN: (m) A. B. Geology and Mining, 1901. Bakersfield, California. Superintendent, San Emigdio Ranch, Bakersfield, California.

SAMPSON, GEORGE HENRY: 1906-1908. R. F. D. 1, Hillsdale, Oregon.

SANBORN, MAURY H.: 1914-1916. Pasadena, California.

SANDS, ALBERT W.: 1920— Oakland, California. Assistant, Civil Engineering, 1920-1922; Student in Geology, Stanford University.

SANSONE, JOHN BAPTIST: 1919— Toronto, Canada. Student in Geology, Stanford University.

*Saunders, Benjamin Rankin: (m) A. B. Geology and Mining, 1907. 1976 Forty-second Avenue, Oakland, California. Engineer, Black Mountain Mine, Magdalena, Sonora, Mexico, 1910–1912.

SAUNDERS, LOWELL WALLER: 1918— Red Bluff, California. Student in Geology, Stanford University.

*SAWYER, DWIGHT LEWIS: (m) 1913-1916; A. B. Geology and Mining, 1920. With Arizona Copper Fields, Inc., Kingman, Arizona, 1916; Captain, Company A, 544th Engineers, A. E. F., France, 1918-1919; Geologist and Chemist, Akron Mines, Whitepine, Colorado, 1920; Engineer, Atlas Mining and Milling Co., Sneffels, Colorado, 1921. Geologist, Minas de Matahombre, Matahombre, Province de Pinar del Rio Cuba, 1922.

Sawyer, Theodore Kremer: 1920— Swarthmore, Pennsylvania. Student in Geology, Stanford University.

SCHELLENBACH, GERALD H.: 1916-1917. Los Angeles, California.

Schellinger, Alfred Kirk: (m) A. B. Geology and Mining. 1910. Chemist with Selby Smelting and Lead Co., California, 1910-1911; Engineer, Yukon Gold Co., Dawson, Yukon Territory, Canada, 1911— Mining Engineer with Keno Hill, Ltd., Mayo, Yukon Territory, Canada, 1920.

SHLAUDEMAN, ROBERT: 1918—
563 North Marengo Avenue, Pasadena, California.
Student in Geology, Stanford University.

*SCHRADER, GUSTAVE: (m) 1903-1905.

5552 Taft Avenue, Oakland, California.
County Surveyor, Amador County, 1911-1918;
Judge of the Recorder's Court of the City of Sutter Creek, 1914-1918;
Mining and Civil Engineering;
Assayer, Cyanider, Mine Examiner and Surveyor for various mines in California and Mexico;
Engineer, Associated Oil Co., Avon, California, 1920-1921.
Shell Oil Company, Martinez, California, 1921.

*Schwarzenbek, Francis X., A. B. Geology and Mining, 1918.

San Francisco, California.

Lieutenant, Aviation Corps, Mather Field, California, 1918-1919;
Assayer, Federal Gold Mines, Angels Camp, California, 1919;
Geologist with Southern Pacific Co., 1919-1920;
Petroleum Engineer, U. S. Bureau of Mines, Bartlesville, Oklahoma, 1920—

SENTOUS, ALVIN ALPHONSE:
Clayton, Contra Costa County, California.
Instructor, Mining Department, Stanford University, 1910-1911;
Geologist, Roxana Petroleum Co. of Oklahoma, 1917—
Geologic Field Assistant with the U. S. Geological Survey, 1911;
Spring Valley Water Co., 1912-1913;
Geologic Ald, U. S. Geological Survey, 1914-1915;
Assistant Geologist, U. S. Geological Survey, 1915-1917;
Box 930, Cheyenne, Wyoming.

*Scott, Walter Winthrop: A. B. Geology and Mining, 1916. Willits, California.

Willis, California.
Geologist, Shell Co. of California, Oilfields, California, 1916–1918;
Oil Issues Co., 609 Carter Building, Houston, Texas, 1918–1921;
U. S. Bureau of Mines, Dallas, Texas, 1921;
U. S. Bureau of Mines, Washington, D. C., 1921;
U. S. Bureau of Mines, 615 Merchants Building, Shreveport, Louisiana, 1922.

SENTOUS, ALVIN ALPHONSE: 1917-1922; A. B. Geology, 1922. Los Angeles, California.

Sessions, Herbert Fiske: 1916.

1005 Kelly Street, Portland, Oregon.

*Severy, Clarence Luther: (m) A. B. Geology and Mining, 1908.

1324 South Newport, Tulsa, Oklahoma.

Cable address, "Severy," Tulsa, Oklahoma.

Engineer for Exchequer Mining and Power Co., Merced, California, 1908;
With Noble Electric Steel Co., Heroult, California, 1909;
Assayer and Engineer, Argonaut Mining Co., Jackson, 1909;
Engineer, Poderosa Mining Co., Ltd., Collahuasi, Chile, 1909–1910;
Assistant Manager, Poderosa Mining Co., Collahuasi, Chile, 1910–1912;
Consulting Mining and Petroleum Geologist, 1913–1915;
Chief Geologist for the Carter Oil Co., Tulsa, Oklahoma, 1915–1917;
Consulting Geologist, 725 Kennedy Building, Tulsa, Oklahoma, 1917–1922.

†Sevier, Irving Henry: 1901-1904; died September, 1904.

*Sevier, Milton William: (m) 1910-1912

Care Syndicate Bldg., Oakland, California.

SHARPE, HOWARD BROOKES: 1900-1903.

Radersburg, Montana.

Radersburg, Montana.

Testing Engineer, Anaconda Copper Mining Co., 1905-1906;

Prospecting and Leasing, Georgetown District, Colorado, 1906-1908;

Irrigation Engineer, Colorado and New Mexico, with F. H. Whitney, Construction Engineer, 1908-1911;

Assistant, Metallurgical Testing Engineer, Butte and Superior Copper Co., 1911-1914;

Foreman, Atwater Concentrator, Basin, Montana, 1914-1915;

Superintendent, Bismarck Mine and Mill, Madison County, Montana, 1915-1916;

Superintendent, Emery Mine and Mill, Deer Lodge County, Montana, 1916-1917;

Chemist, Timber Butte M. & M. Co., Butte, 1917-1918;

Superintendent, Hyare M. & M. Co., Comet Mine, Basin, Montana, 1918-1920;

Reinforced Concrete Designer and Irrigation Engineer for Gerharz-Joqueth Engineering Co., Radersburg, Montana.

Co., Radersburg, Montana.

*Shedd, Solon: (m) B. S. Monmouth, Oregon, 1889; A. B. Geology, 1896; A. M. College Station, Pullman, Washington.
Instructor, Natural Science, Oregon Normal, 1890-1894;
Assistant Professor, Geology, State College of Washington, 1896-1901;
Geologist, Washington Geological Survey, 1901-1902;
Assistant State Geologist, Washington Geological Survey, 1908;
Professor of Geology, Washington State College, Pullman, Washington, 1901—
Acting Associate Professor of Geology, Stanford University, Summer and Autumn Quarters, 1921;
State Geologist of Washington, 1901

State Geologist of Washington, 1921.

*SHERMAN, RICHARD WADE: 1914-

427 Webster Street, Palo Alto, California.

Student in Geology, Stanford University.

SHOCKLEY, WILLIAM HILLMAN: S. B. Mining, Massachusetts Institute of Technology, 1875.

Joseph Maverley Street, Palo Alto, California.

Land Surveyor and Assistant on Plantation, Ocala, Florida, 1876-1877;

Cook and Assistant, Gold Saving Plant, Gold Run, California, 1878;

Engineer at Hydraulic Mines, Big Flat and Haynes Flat, Del Norte County, California, 1878-1879;

Assayer, Bookkeeper, Surveyor, Superintendent, General Manager, Diablo Mining and Milling Co., Candelaria, Nevada, 1880-1893;
Assayer, Bookkeeper, Superintendent, W. Y. O. D. Mine, Grass Valley, California, 1893: Traveling in America and Europe, 1894-1896;
Consulting Engineer, Bewick, Moreing & Co., China, Manchuria, Mongolia, 1897-1899;
Mine Examinations in Siberia, Australia, Korea, Texas, Peru, Sudan, Nevada, Russia, 1900-1912;
Lecturer at Stanford University, 1920—

SHORES, ETHELBERT: 1907-1910.

Salt Lake City, Utah.

Metallurgical Engineer, Stimpson Equipment Co., Felt Building, Salt Lake City, Utah.

*Short, Frank Rice: A. B. Geology and Mining, 1898.

Hobart Building, San Francisco, California.

President, Stanford Geology Club, 1897-1898;

Mining Engineer with Guggenheim Exploration Co.;

Early investigation of properties in various parts of the world;

Consulting Mining Engineer.

SHOW, JOSEPH H.: 1915—
353 Melville Avenue, Palo Alto, California.
Tank Corps, U. S. A., 1918.
Student in Geology, Stanford University.

*Shutts; Arthur Burton: (m) A. B. Geology and Mining, 1909.
Globe, Arizona.
Wild Goose Mining and Trading Co., Nome, Alaska, 1909;
Manager, Santa Maria, Mexico, Mines, Ltd., 1910-1912;
Superintendent, Staso Milling Co., Poultney, Vermont, 1913-1918;
General Manager, American Ores and Asbestos, Inc., Globe, Arizona, 1919—

*Sickler, Jack Miller: A. B. Geology, 1916. Pasadena, California. Geologist, Mid-Northern Oil Co., Billings, Montana.

*SIEBENTHAL, CLAUDE ELLSWORTH: (m) A. B. Geology, 1892; A. M. 1893.
Assistant Geologist, Geological Survey of Arkansas, 1889–1893;
Instructor, Geology, Indiana University, 1891;
Assistant Geologist, Indiana Geological Survey, 1896–1899;
Assistant Geologist, U. S. Geological Survey, 1902–1911;
Geologist, U. S. Geological Survey, 1911—
U. S. Geological Survey, Washington, D. C., 1919—

SIEMON, FRED: A. B. Geology and Mining, 1916.
Ontario, California.
Assistant Testing Engineer, Burma Mines, Ltd., Nantu, Burma, 1916-1919;
With Compañia Mexicana de Combustible, S. A., Apartado 48, Tampico, Mexico.

*SILVEIRA, JOSEPH THEODORE: 1919— Sebastopol, California. Student in Geology, Stanford University.

*SIMMONS, ROUSE: 1919—
Portland, Oregon.
Student in Geology, Stanford University.

SIMONS, HERBERT RULE: 1919— Riverside, California. Student in Geology, Stanford University.

†SIMPSON, RALPH TOWNSEND: 1913-1914; died in service, Rockwell Field, San Diego, California, March 18, 1918

SIMPSON, STEWART: 1918— San Francisco, California. Student in Geology, Stanford University.

*SINCLAIR, EWART GLADSTONE: (m) A.B. Geology and Mining, 1912. LAIR, EWART GLABSTONE: (m) A. B. Geology and Milling, 1912.

Casper, Wyoming.
Assistant Chief Engineer, Department Lima, Peru, S. A., 1905-1907;
Engineer, Yukon Gold Co., Yukon Territory, 1908-1909;
Engineer, Federal Mining Co., 1910;
California Highway, 1911-1912;
Geologist, Caribbean Petroleum Co., Venezuela, 1912-1913;
Geologist, Spokane Development Co., 1913-1914;
Geologist for Arlington Mining Co., 1914-1916;
Assistant Foreman, Anaconda Copper Co., 1916-1919;
Geologist for Harrison & Eaton, 1919-1920;
Geologist in charge of Wyoming Division, Midwest Refining Co., 1921-1922. SINCLAIR, JESSE DONALD: 1919-Lakeville, California. Student in Geology, Stanford University. †*SIRDEVAN, WILLIAM HENRY: A. B. Geology and Mining, 1909; E. M., Sheffield Scientific School, Yale, 1912. Died, September, 1920. SKINNER, EDWARD DEVIERE, JR.: 1919-Los Angeles, California. Student in Geology, Stanford University. SLAKER, FRANK LOUIS: 1900-1902. 2172 Green Street, San Francisco, California. SLEMONS, HAL MAXWELL: (m) 1899-1901. Monrovia, California. City Water Superintendent, Monrovia, California, 1907-1912; Irrigation Engineer, Monrovia, California. SLOCUM, LECOUNT HAYES: (m) 1914-1917.

803 Cowper Street, Palo Alto, California.
First Lieutenant, Cavalry, U. S. A., A. E. F., France, 1918-1919. *Slusher, Dale: (m) A. B. Geology and Mining, 1907. HER, DALE: (III) A. D. Geology and saming, 2007.

Pendleton, Oregon.

Assistant Geologist, Associated Oil Co., 1908;
Southern Pacific Railroad Co., 1907-1908;
Field Geologist, Kern Trading and Oil Co., Section 25, Coalinga Oil District, 1909-1910;
Assistant Superintendent, Kern Trading and Oil Co., Maricopa, California, 1911-1912;
Field Manager, Oil Fields of Mexico Co., Furbero, Pupantala, Vera Cruz, Mexico, 1913;
Farmer and Stock Business, Nolin, Oregon, 1914-1919. SMALL, HARVEY BRADSTREET: 1891-1892.
Member A. I. M. E.
Mining Engineer, care Olimpo de Valle, Mangenque, Colombia, South America. *SMALL, HORATIO L.: (m) A. B. Geology and Mining, 1911. LI, HORATIO L.: (III) A. D. Geology and Manning, 222.

Poultney, Vermont.

Irrigation Engineer and Geologist for Brazilian Government, 1912-1914;
Geologist, California State Highway Commission, 1912;
Plant Superintendent, Staso Milling Co., Hampton, New York, 1915-1918;
Captain, 32d Provisional Ordnance Depot, A. E. F., 1918-1919;
Stanwood-Small Co., Inc., Caisa 570, Rio de Janeiro, Brazil, 1919—
Treasurer and Manager, Blue Ridge Slate Corporation, Esmont, Virginia. SMALLEY, GEORGE RICHARD: 1911-1914. Box 611 Madera, California.
With 319th Engineers, U. S. A., A. E. F., 1918-1919;
Assistant Fish and Game Commissioner, 1919— SMART, ORNAN BRIDGES: (m) 1908-1911 Apartado 161, Tampico Tamps, Mexico.

With Cook & Smart, Structural and Mining Engineers, Phoenix, Arizona, 1913-1916;
With Peabody & Smart, Structural and Mining Engineers, Phoenix, Arizona, 1913-1916;
Construction Engineer, New Cornelia Copper Co., Ajo, Arizona, 1916;
Superintendent of Construction, Belmont-Shawmut Mining Co., Shawmut, California,

1917-1918;

Superintendent of Construction, Belmont-Wagner Mining Co., Telluride, Colorado, 1918-1919.
Chief Construction Engineer, Tonopah-Belmont Development Co., San Francisco, California, 1919-1920;
Consulting Engineer, Smuggler Union Mining Co., Telluride, Colorado, 1920;
Construction Engineer, Compañia Mexicana de Petroleo, "El Aguila," S. A., Apartado 161, Tampico Tamps, Mexico, 1920—
Member A. I. Mining and Metallurgical Engineers.

SMITH, EDWARD AUGUSTUS, JR.: A. B. Geology and Mining, 1903. 2536 Griffin Street, Denver, Colorado. Superintendent, Ward-Smuggler Gold Mining Co.; General Manager, Pittsburg and San Juan Mining Co.; Mining Engineer, Victor, Colorado; Captain, Royal Engineers.

SMITH, JACOB D.: 1916-1917. Winchester, Kentucky.

**SMITH, JAMES PERRIN: (m) A. B. Wofford College, 1884; A. M. Vanderbilt, 1886;
Ph. D. Gottingen, 1892; LL. D. Wofford College, 1916.

1335 Cowper Street, Palo Alto, California.
Assistant Geologist and Chemist, Arkansas Geological Survey, 1887-1890;
Assistant Geologist, U. S. Geological Survey, 1895-1906; Geologist, 1906;
Professor, Paleontology, Stanford University, 1892—
Executive Head of Department of Geology, Stanford University, 1919—

Executive Head of Department of Geology, Stanford University, 19

SMITH, LEWIS ANDERSON: 1917-1921; A. B. Geology, 1922.

Pearce, Arizona.

With Copper Queen Mining Co., Bisbee, Arizona.

*SMITH, PAUL LAVENDEE: (m) A. B. Geology and Mining, 1903.

Palo Alto, California.

Assistant, Badger Gold Mining and Milling Co., Susanville, Oregon, 1903-1905;
On exploration work, Kotsina, Alaska, 1906;
With Guggenheim Exploration Co., Cariboo, British Columbia, 1907-1909;
With Smith's Cyclery, Palo Alto, California;
Rancher, San Miguel, California, 1918—

*SMITH, RICHARD GARBETT: (m) A. B. Geology and Mining, 1919.

Natoma, Sacramento County, California.

With Wild Goose Mining and Trading Co., Nome, Alaska, 1909-1910, 1912;
Engineer with Seiffert Mining Co., Nome, Alaska, 1909-1910;
U. S. Mineral Surveyor, Nome, Alaska, 1911;
In charge of prospecting and engineering, Natomas Consolidated, Gold Dredging Department, Natoma, Sacramento County, California, 1912—

*Smith, Warren Du Pre: B. S. Wisconsin, 1902; A. M. Geology, Stanford, 1904; Ph. D. Wisconsin, 1908.

941 East Nineteenth Street, Eugene, Oregon.
Field Assistant, Wisconsin Geological Survey, 1901-1903;
Assistant, Mineralogy, Stanford University, 1904;
Fellow in Geology, University of Chicago, 1904-1905;
Geologist, Mining Bureau, Manila, Philippine Islands, 1905-1906;
Chief of Division of Mines, Bureau of Science, Manila, Philippine Islands, 1907-1914.
Head of Department of Geology, University of Oregon, Eugene, Oregon, 1914—
Member Sub-committee on Geology, Pacific Coast Division of National Research Council.
Chief, Division of Mines, Bureau of Science, Philippine Government, 1920-22 (on leave from University of Oregon);
Fellow, Geol. Soc. America;
Fellow, American Geographical Society:
Member, A. I. M. E.

*SNELL, LESTER WILLIAM: A.B. Geology and Mining, 1915. Raton, New Mexico. Lieutenant, Coast Artillery, U. S. A., 1918-1919.

SNOOK, WALTER BERNARD: 1919—
2425 Prospect Street, Berkeley, California.
Student in Geology, Stanford University.

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*Soper, Edgar Kirke: (m) A. B. Geology and Mining, 1908; M. A. University of
                       Minnesota, 1913; Ph. D. University of Minnesota, 1917.
Instructor in Economic Geology and Mining, Cornell University, 1908-1910;
Instructor in Economic Geology, University of Minnesota, Minneapolis, Minnesota, 1910-
                             1913;
                       1913;
Geologist, American Smelting and Refining Co., Sierra Mojada, Coahuila, Mexico, 1913;
Geologist, Minnesota State Geological Survey 1913-1915;
Assistant Professor, Mining Engineering, University of Idaho, 1915-1916;
Associate Professor, Mining Engineering, University of Idaho, 1916;
Dean of Oregon School of Mines and Professor of Geology, 1917-1919;
Geologist, S. Pearson & Son, Ltd., Trinidad, British West Indies, 1919-1920;
Manager, Sinclair Consolidated Oil Corp. interests in Alabama, 1920;
Manager, Sinclair Consolidated Oil Corp. interests in Trinidad, B. W. I., 1921-
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*Soper, Harold Calhoun: 1911-1913; 1914-1916. 1401 Cowper Street, Palo Alto, California. New Wonder Mining Co., New Wonder, Nevada; Naval Air Service, Panama, 1918-1919.

*Soper, Ralph Hamilton: A. B. Geology, 1908-1909; 1915.

c/o Sinclair Exploration Co., 45 Nassau Street, New York City, N. Y. With Imperial Valley Irrigation Survey, 1907-1908; Geologist for Barber Asphalt Co., Venezuela, 1911; Geologist with Brazilian Government, Brazil, 1912-1915; Geologist for Carter Oil Co., Mid-Continent Field, 1916; Geologist for Mexican-Gulf Oil Co., Mexico, 1917-1918; Resident Manager, Trinidad Petroleum Development Co., Ltd., 1919; With Sinclair Consolidated Oil Corp., 1920—

*Sparks, Dale Darrell: (m) 1920— 3014 South Grand Avenue, Los Angeles, California. Member Am. Chem. Soc.; Student in Geology, Stanford University.

*Spencer, Lawrence M.: 1913-1916; A. B. Geology, 1920. Fellows, California. Assistant, Stanford Geological Survey, 1921; Geologist, Cariboo Oil Mining Co., Fellows, California; Geologist, Record Oil Co., Fellows, California.

Spencer, Louis Bernard: A. B., C. E., 1898.

Mina, Nevada. Graduate Student in Geology, Stanford University, 1916; Mining Engineer, Mina, Nevada.

SPICKARD, HAROLD E.: A. B. Geology, 1920. 1230 So. Mulberry Street, Sioux City, Iowa. 1230 So. Mulberry Street, Sloux City, Iowa.

1913-1915, Drake University;

1915-1916, Missouri School of Mines;

1919, University of Lyon, Lyon, France;

1911-1912, C. R. I. & P. R. R. Missouri, Kansas and Iowa;

Des Moines Union R. R. 1916;

Copper Queen Mining Co., Bisbee, Arizona;

1917 Cananea Cons. Copper Co., Cananea, Sonora, Mexico;

1917-1919, 7th Engineers, U. S. Army, France;

1919, Iowa State Highway Commission;

1920, Resident Engineer on Construction, Iowa Highway Commission;

1921, District Engineer of Plans, Iowa Highway Commission, Court House, Sioux City, Iowa.

*Spiers, Robert J.: 1918-1922; A. B. Geology, 1922.

Middletown, Lake County, California.

President, G. & M. S. A. U., 1922—
Graduate Student in Mining and Metallurgy, Stanford University.

SFRATLEY, JOHN WALTER, JR.: 1919— Student in Geology, Stanford University.

Spurlock, Franklin, Jr.: 1919-Covelo, California. Student in Geology, Stanford University.

- *Spurlock, Horace Eldred: 1917-1921; A. B. Geology, 1921. Covelo, California.
 - STANLEY, HERBERT M.: A. B. Stanford, 1917.
 269 Hawthorne Avenue, Palo Alto, California.
 Geologist and Topographer. Elkoro Mines Co., Nevada, 1916;
 Geologist, Royal Dutch Shell Group, 1919.
- STANLEY, GEORGE E.: 1918—
 269 Hawthorne Avenue, Palo Alto, California.
 Student in Geology, Stanford University.
- †*STARK, HERBERT SPENCER: (m) A. B. Geology, 1895; d. February 18, 1910.
- *STARNES, XAVIER BRAND: 1905-1909; A. M. Geology and Mining, 1916.
 Assistant in Engineering Department, Federal Mining & Smeltig Co., Wardner, Idaho, 1909-1910;
 Instrument Man, Bingham and Garfield Ry. and Utah Copper Co., Bingham Canyon. Utah, 1910-1911;
 Assistant Engineer, Northern Contracting Co., Atlanta, Ga., 1911-1912;
 Engineer and Right of Way Agent, Land Dept., Georgia Ry. & Power Co., Atlanta, Ga., 1913;
 Contractor of Building Construction, N. C. & Texas 1914-1916;
 Engineer of Mines, Cobriza Mines Development Corp., Johnson, Arizona, 1917;
 Geologist, Acting Chief Geologist, Chief Geologist, Morenci Branch, Phelps-Dodge Corporation, Morenci, Arizona, 1918-1920.
- *Steel, Donald: (m) A. B. Geology and Mining, 1908.
 644 Channing Avenue, Palo Alto, California.
 Assistant in Mining, Stanford University, 1908-1909;
 Assistant Engineer, Nevada Consolidated Copper Co., 1909;
 Instructor in Economic Geology and Mining, Cornell University, 1910;
 Placer Examination and Geological Reconnoissance in Belgian Congo, 1910-1912;
 Professional Practice in California, U. S., Canada and Alaska, 1913-1916;
 Superintendent, Elkoro Mines Co., Jarbidge, Nevada, 1917-1918;
 Mine Examinations, in Federated Malay States, 1919-1920;
 Resident Manager, Elkoro Mines Co., Jarbidge, Nevada, 1920—
- STEEL, HARRY BISMARCK: 1894-1899.

 Denver Colorado.

 The Midwest Refining Co., First National Bank Building, Denver, Colorado.
- *STEINEKE, MAX: 1917-1921. A. B. Geology, 1921.

 Brookings, Oregon.

 Geologic Exploration in Northern Alaska, 1921;
 Graduate Student in Mining and Metallurgy, 1922—
- *STEINY, HOMER J.: A. B. Geology and Mining, 1918.

 1200 Sacramento Street, San Francisco, California.

 Resident Geologist, Associated Oil Co., Fellows, Kern County, California, 1918-1921;
 Assistant Geologist, Associated Oil Co., 523 Sharon Building, San Francisco, California, 1921-1922.
- STEPHENS, JAMES FRED: 1915-1916. Oakland, California.
- STEVENS, GEORGE RICHARD: (m) A. B. Geology and Mining, 1906.

 Assistant Superintendent, Wei-Hai-Wei Mining Co., 1905-1906;
 Assayer and Chemist, Glasgow and West Exploration Co., 1906-1909;
 Assistant, City Engineer's office, San Francisco, 1909;
 Superintendent, Olympic Mines Co., Mina, Nevada;
 Petroleum Geologist for H. L. Hamilton, 609 Carter Bldg, Houston, Texas;
 Petroleum Geologist for Pierce Oil Corp., 324 Washington Ave., Shreveport, Louisianz.
- STEWART, CHARLES ALFRED: 1919— Cowiche, Washington. Student in Geology, Stanford University.
- †*Stewart, Edwin John: A. B. Geology and Mining, 1912; died 1914.

*STEWART, HAROLD SMITH: A. B. Geology and Mining, 1916.
Upland, California. Petroleum Geologist, Bartlesville, Oklahoma, 1916–1917; In U. S. Service, Headquarters Co., 115th Colorado Engineers, 1917–1919; Field Department, Union Oil Co., 1919–1920; Manufacturing Department, Union Oil Co., 1920— STEWART, ROYAL MINTON: 1908-1910. 345 Elm Street, Reno, Nevada. *Stipp, Thomas Franklin: 1917-1921; A. B. Geology, 1922. Ukiah, California. Geologist, Pacific Gas and Electric Co., Bird's Landing, California. STOLZ, HARRY P.: 1917-1921. A. B. Geology, 1921.

Box 1365, Stanford University, California.
Second Lieutenant, U. S. Army, 1918-1919;
Lieutenant of Infantry, Adjutant, 2d Bat., 363d Inf., U. S. A.;
Graduate Student in Mining and Metallurgy, 1921— *Stone, Herbert: (m) A. B. Geology and Mining, 1914.

1733 Hopkins Street, Berkeley, California.
Assistant in Geology, Stanford University, 1913-1914;
President, Stanford Section, G. M. S. A. U., 1914;
Engineer with J. M. Hyde, 1914;
Manager, Murex Co., Ltd., 1915;
Superintendent, Lane Mill, Darwin, California, 1916-1918;
Superintendent, Copper Dyke Mine, Homestead, Oregon, 1918-1920;
Assistant Geologist, Southern Pacific Co., 659 S. P. Building, San Francisco, California, 1920-1920-STORKE, ARTHUR D.: 1913-1916. 825 A. C. Foster Building, Denver, Colorado. Manager, Ore Production Co., Rincon, New Mexico. *Strauss, John S.: 1918-1921; A. B. Geology, 1921. Granada Hotel, San Francisco, California. Geologist, Honolulu Cons. Oil Co., Taft, California. *Strohn, Clarence Burton: A. B. History, 1900.
214 Downer Place, Aurora, Illinois.
Vice-President, Western United States Gas and Electric Co., Aurora, Illinois. *Strong, Archibald McClure: (m) A. B. Chemistry, 1899. 224 Union Oil Building, Los Angeles, California. 224 Union Oil Building, Los Angeles, California.

Hydraulic and Mining Engineer;

President, Stanford Geology Club, 1898-1899;

County Surveyor, Inyo County, California, 1902-1910;

City Engineer, Bishop, Inyo County, California, 1904-1910;

Private Practice, Los Angeles, California, 1910-1915;

With Veuve & Strong, Consulting Engineers, Los Angeles, California, 1915-1917;

Consulting Practice, 1917—

*Strout, Ernest Allen: (m) A. B. Geology and Mining, 1902.

UT, ERNEST ALLEN: (m) A. B. Geology and Mining, 1902.

Guadalupe, Zacatecas, Mexico
Surveyor, Center Star and War Eagle Mining Co., British Columbia, Canada;
Surveyor, Lake View, Consols., Ltd., Kaigoorlie, Western Australia;
Acting Manager, Lancaster Gold Mining Co., Ltd., May Consolidated Gold Mining Co.,
Ltd., Geduld Gold Mining Co., Ltd., Princess Estate Gold Mining Co., Ltd., Transvaal,
South Africa;
Underground Manager, Witwatersrand Deep, Ltd., Transvaal, South Africa;
General Superintendent, Compania de Santa Gertrudes, S. A., Pachuca, Mexico;
Mines Superintendent, Compania de Santa Gertrudes, S. A., Pachuca, Mexico;
At present, Manager, La Fe Mining Co., Ltd., Guadalupe, Zacatecas, Mexico;
At present, Representative, Union Corporation, Ltd., of London;
At present, Manager, Zacatecas Syndicate, Ltd.;
At present, Manager, Cia. Internacional Minera, S. A.

*STUART, WILLIAM ELDER: (m) A. B. Geology and Mining, 1895. Burlingame, California.

Expert to Ramirez Consolidated Quicksilver Mines, San Benito County, 1900-1904;

Attorney at Law, Specialty, Land and Mining, Burlingame, California. SUNDELL, ALFRED Luis: 1908-1911. Alameda, California.

SUTLIFF, HOWARD DONALD: 1920— Sunnyside, California. Student in Geology, Stanford University.

*Swarts, Clifton Ray: A. B. Geology, 1920.

Hermosa Beach, Los Angeles County, California, Field Geologist, Petroleum Midway, Fellows, California, 1917; Field Geologist, Petroleum Midway, Los Angeles, 1917; A. E. F., 1918–1919;
Tolman Survey, Coalinga Oil Field, 1919;
Student, Stanford University, 1920;
Field Geologist for Carl Beal in Mexico, 1920;
Graduate Student in Geology, 1922.

*Sweeney, Stender Joseph: 1919— 430 West Thirty-first Street, Los Angeles, California. Student in Geology, Stanford University.

Swem, HARRY ARCHIE: 1909-1913.

Care Steptoe Mining and Smelting Company, McGill, Nevada.

Lieutenant, Company D, 106th Engineers, A. E. F., France;
With Nevada Consolidated Mining Co., McGill, Nevada, 1919-

SWINERTON, ALFRED BINGHAM: 1900-1906.
1904 Franklin Street, San Francisco, California.

*Taber, Stephen: (m) A. B. Geology and Mining, 1906; Ph. D. University of Virginia, 1912.

105 West Grace Street, Richmond, Virginia.
Assayer and Chemist, Santa Maria de Guadalupe y Anexas Mines, 1906–1907; Field Assistant, California Earthquake Investigation Commission, 1906; Assistant Geologist, Virginia Geological Survey, and Instructor in Economic Geology, University of Virginia, 1909–1912;
Professor of Geology and Mineralogy, University of South Carolina, Columbia, South Carolina, 1912—
State Geologist, South Carolina, 1914—
Member, Porto Rico Earthquake Investigation Commission, 1918–1919;
Associate Professor of Geology, Stanford University, Summer Quarter, 1920; Economic Geologist.

**TAFF, JOSEPH ALEXANDER: (m) B. S. Texas, 1894.
628 Cowper Street, Palo Alto, California.
Honorary Member, G. M. S. A. U.;
Assistant Geologist, Arkansas Geological Survey, 1888–1889;
Assistant Geologist, Texas Geological Survey, 1889–1894;
Assistant Geologist, U. S. Geological Survey, 1894–1900;
Geologist, 1900–1909;
Geologist, 1900–1909;
Geologist, Southern Pacific Railroad Co., 1909—
Consulting Geologist, Associated Oil Co., 1918—
Acting Professor of Geology, Stanford University, Fall Quarter, 1920;
Chief Geologist, Pacific Oil, Associated Oil, and Amalgamated Oil Co.;
Consulting Geologist, Southern Pacific Co., Southern Pacific Bldg., San Francisco, 1921–1922.

*TAGGART, ARTHUR FAY: (m) A. B. Geology and Mining, 1909; E. M. 1910.
Sheffield Scientific School, Yale University, New Haven, Connecticut, 1911–1919;
Consulting Engineer, Taggart & Yerxa, 165 Division Street, New Haven, Conn., 1919—
Professor of Ore Dressing, School of Mines, Columbia University, New York, N. Y., 1919—

TALBERT, PAUL HOUSTON: 1919—
Fort Worth, Texas.
Student in Geology, Stanford University.

*TAMPLIN, W. W.: 1918-1922; A. B. Geology, 1922. 652 Forest Avenue, Palo Alto, California. Graduate Student in Geology, Stanford University. *TARPEY, DAVID: 1901-1904.

Newhouse Building, Salt Lake City, Utah.
General Engineering and Examination Work, 1910-1912;
Instructor, Mining, Yale University, New Haven, Connecticut, 1912-1914;
Associate Professor, Mining, Yale University, New Haven, Connecticut, 1914—
Care Paul Tarpey, care State Highway Commission, Sacramento, California;
Captain, La. Cav. (in Federal Service), March 31 to August 28, 1917;
Captain, Headquarters Troop, 42nd Division, Aug. 28, 1917, to October 2, 1918;
First Army Headquarters, Oct. 3, 1918, to Nov. 1, 1918; First Gas Regiment, Engineer
Officer, 1st Battalion, Nov. 1, 1918, to Feb. 11, 1919;
With Phoenix Title & Trust Co., 1920—

TAYLOR, ALVIN V., JR.: 1922—
211 Dooly Building, Salt Lake City, Utah.
Student in Geology, Stanford University, 1922.

*Taylor, Louis John: A. B. Geology and Mining, 1912.

1330 East Brill Street, Phoenix, Arizona.
President, Stanford Section, G. M. S. A. U., 1912;
Assistant Engineer, California State Highway Commission, 1912;
Sampler and Assayer, Babilonia Mine, 1913;
Assistant Metallurgist, Cyanide Plant, Babilonia Mine, Nicaragua, Central America, 1914-1915;
First Lieutenant, First Louisiana Cavalry, Mexico Border Duty, 1916;
Captain, Louisiana Cavalry, in Federal Service, April 1, 1917;
Captain, Headquarters Troop, 42nd Division, Aug. 1917, to Oct., 1918;
1st Gas Regiment, Nov., 1918, to Feb., 1919;
With J. H. Heinen, Title Investment Co., Vice-President, 1916-1919;
Phoenix Title and Trust Co., 1920; Trust officer, 1921;
Business Address, 130 West Adams Street, Phoenix, Arizona.

TEEL, CLAUDE CAMERON: 1905-1907. Bishop, California.

*Templeton, Eugene Crittenden: A. B. Geology, 1910; A. M. 1912.

Geologist and Assistant Surveyor, Rawhide Coalition Mines Co., Rawhide, Nevada, 1910;
Instructor, Geology and Mining, Stanford University, 1911-1912;
Instructor in Field and Topographic Geology, Stanford University, summers of 1911 and 1912;
Geologist and Surveyor, Stanford-Durham Ranch, California, 1912-1913;
Assistant to J. C. Branner, Geologic Work in Brazil, 1913;
Petroleum Geologist with H. R. Johnson, 805 H. W. Hellman Building, Los Angeles, California, 1913-1914;
Mining Geologist, Ridder Mine, via Ust Kameonogovsk, Semipalatinsk, Oblast, Siberia, 1915-1918;
Enlisted Soldier, Company C, 27th Engineers, U. S. A., France, 1918-1919;
Geologist with Henry L. Doherty & Co., 60 Wall Street, New York City, 1919—

TEMPLETON, JOHN WESLEY: A. B. Chemistry, 1920.

Taft, California.

Assistant Geologist, General Petroleum Corporation, Taft, California.

Resident Engineer, General Petroleum Corporation, Taft, California, 1922—

*Templeton, Ruric Ruskin: 1911-1917.

Box B., Downey, California.

Geologist, Okmulgee, Oklahoma;

THIES, ARNO GROTE: (m) A. B. Geology, 1902. Cashier, Carbon State Bank, Hanna, Wyoming.

†*Thomas, Chester A.: A. B. Geology, 1898. Died Nov. 11, 1920.

THOMAS, EARLE A.: 1919—
Pasadena, California.
Student in Geology, Stanford University.

THOMAS, FRANK HOLMAN: Ukiah, California. THOMPSON, LLOYD LYMAN: 1919-

Aromas, California.

Student in Geology, Stanford University.

*Thompson, Thomas West: (m) A. B. Geology and Mining, 1912; E. M., 1915
909 Alma Street, Palo Alto, California.
La Leonesa Mine, Matagalpa, Nicaragua, Central America, 1912–1914;
Assistant in Metallurgy, Stanford University, 1915;
Mill Foreman, Butters Divisadero, San Salvador, Central America, 1916–1917;
Metallurgist. Chas. Butters Co., Oakland, California, 1917–1921;
Mine Superintendent, Presidio Mining Co., Shafter, Texas.

*Thoms, Clifford Carlton: (m) A. B. Geology and Mining ,1901.

Assistant, California Mining Bureau;
Millman, Mill Superintendent, Field Assistant for Nitre Co.;
Assayer, Cyanide man, Mine Surveyor in Mexico, Arizona and California;
Cyanide Superintendent, Bagdad-Chase Gold Mining Co., Barstow, 1909; Rialto, 1910-'11;
Puente Oil Co., Fullerton, California, 1911-1913;
Chief Engineer, Olinda Gasoline Co., 1913-1919;
Petroleum Engineer, California State Mining Bureau, 1918—
512 Union League Building, Los Angeles, California.

*Thomson, Austin McKee: 1899-1903.

Co-operative Land Company, 318 Mason Building, Fresno, California.

THORNE, W. E.:

Santa Cruz, California.

Engineering, Surveying, Mine Examining, 1889-1899;
Engineer and Manager, Gold Bug Mining Co., Eldorado Co., California, 1899-1902;
Engineer and Manager, Big Kink Hydraulic Mining Co., 40-Mile River, Alaska, 1902-03:
Engineer and Manager, Oro Grande Hydraulic Mine, Dillon, Colorado, 1903-1904;
Engineer and Manager, Snowstorm Hydraulic Co., Fairplay, Colorado, 1905-1906;
Field Assistant to California State Mineralogist, 1907;
Examining Engineer, Hamon Engineering Co., San Francisco, California, 1908-1910;
Consulting Hydraulic and Dredging Engineer, Consolidated Goldfields of London; Europe,
Asia. Africa. 1911-—

*Thralls, Warren H.: A. B. Geology, 1920.

Asia, Africa, 1911-

Wellington, Kansas. Geologist, Companias del A.G.W.I., Tampico, Mexico, 1920—

TILDEN, HEBER VOORMAN: 1919-

San Francisco, California. Student in Geology, Stanford University.

†*Toll, Able Hyde: A. B. Civil Engineering, 1898; d. September, 1906.

**TOLMAN, CYRUS FISHER, JR.: (m) B.S. Chicago, 1896; Fellow in Geology.

Chicago, 1897-1898.

Cnicago, 1697-1896.

6 Alvarado Row, Stanford University, California.

Territorial Geologist of Arizona, 1910-1912;
Professor, Geology, University of Arizona, 1905-1906;
Professor, Geology and Mining, 1906-1912;
Associate Professor, Economic Geology, Stanford University, 1912-1919;
Professor, Economic Geology, Stanford University, 1919—
Consulting Geologist since 1899.

TOURTILLOT, RAYMOND ROLAND: 1915-1917.

Lindsay, California.

First Lieutenant, 63rd Infantry, Baltimore, Md., 1917-1919; First Lieutenant, 5th Infantry, 1919-1921, Army of Occupation in Germany.

Townsend, Thomas Harold: 1913-1917.

San Jose, California. Second Lieutenant, Engineers, 28th Regiment, A. P. O., 747, A. E. F., France.

Trago, Eugene Nickey: 1919-

Santa Ana, California.

Student in Geology, Stanford University.

TRENT, WALTER EDWIN:
165 Broadway, New York City.
Consulting Engineer, 165 Broadway, New York City.

TRIPLETT, VERNON WILLIAM: 1919— Ben Lomond, California. Student in Geology, Stanford University.

TSUBAKIDA, TAKUSO: 1918-1921; A. B. Geology, 1921. Hiroshimoken, Nishihara Mura, Japan.

*Turner, Frank Warren: A. B. Geology and Mining, 1912.

301 Mission Street, San Francisco, California.

President, Stanford Section, G. M. S. A. U., 1908-1909;

Field Geologist and Chemical Engineer with W. P. Fuller Paint Co., San Francisco, California, 1909-1913;

Corporation Salesman, W. P. Fuller Paint Co., San Francisco, California, 1913-1917;

1918
U. S. N. R., 1917-1918.

With W. P. Fuller & Co., 1918-

†*TURNER, HARRY COBURN: (m) A. B. Chemistry, 1897; died in service December 6, 1918.

**Turner, Henry Ward: B. S. Washington, 1895; Stanford, 1896-1897.

Assistant Entomologist, Cornell, 1880;
Assistant Entomologist, U. S. Department of Agriculture, 1882;
Assistant Geologist, U. S. Geological Survey, 1883-1895; Geologist, 1895-1901;
Manager, Marfa and Mariposa Quicksilver Mine, Terlingua, Texas, 1904-1905;
Consulting Engineer, Ladd Metals Co., Portland, Oregon, 1906-1907;
Geologist, Kyshtim Corporation, 1911;
Geologist, Russian Mining Corporation, 1914-1915;
Vice-President, Oroville Dredging, Ltd., 1916-1920;
Economic Geologist and Mining Engineer, 1901-1922;
593 Mills Building, San Francisco, California.

†*Turner, Thomas Norton: A. B. Geology and Mining, 1914; died in service November, 1918.

TUTMAN, BALDO JOSEPH: 1919— Mountain View, California. Student in Geology, Stanford University.

TUTTLE, ALBERT LEON: 1906-1908.

653 State Street, Watertown, New York, Captain, Inf., U. S. A., Asst. P. M. S. & T., College Station, Texas; Captain, Inf., U. S. A., Camp Benning, Georgia, September, 1922-June, 1923.

URBAN, JOSEPH CHARLES: 1912-1916.

3554 Indiana Street, San Diego, California.
Geologist, Empire Gas & Fuel Co., Kentucky and Ohio, 1917;
Second Lieutenant, U. S. Infantry, 1918;
Geologist, Empire Gas & Fuel Co., Oklahoma and Kansas, 1919;
Geologist, Gypsy Oil Co., Nicaraguan Expedition, 1919-1920.

VAN CAMPEN, FRANK RUMSEY: (m) 1906-1908.

123 Belevue, North, Seattle, Washington.
General Manager, Beatson Copper Co., La Touche, Alaska, 1913-1916;
Mining Engineer, 1916-1918;
Superintendent, Bering River Coal Co., Cordova, Alaska, 1919.

*VAN CLIFF, H. MAX: 1917-1921; A. B. Geology, 1921. Lompoc, California.

*VANDERVOORT, THEODORE, JR.: 1904-1908.
Palo Alto, California.
In Business, Willow Creek, Humboldt County, California.

VAN NORDEN, MAX L.: A. B. Geology and Mining, 1905. 65 Central Park, West, New York City. Importing Business, Frame & Co., 96 Wall Street. *VAUDOIT, PAUL LOUIS: 1917-San Luis Obispo, California. Student in Geology, Stanford University.

VENATOR, LOUIS COOKSEY: 1919-Los Angeles, California.

Geologist, Associated Oil Co. of Wyoming, Rock River, Wyoming.

*VICKERY, FREDERICK PAUL: (m) A. B. Chemistry, University of California. A. M. Geology, Stanford University, 1919.

First Lieutenant, Ordnance, Washington, D. C., 1918;
Department Geology, Southern Branch University of California, Los Angeles.

*Vrang, Christion: A. B. Geology, 1915.

Belvedere Apartments, Salt Lake City, Utah.

With Guggenheim Exploration Co., Klondyke Gold Fields, Yukon Territory, Can., 1911;
President, Stanford Section, G. M. S. A. U., 1914—1915;
Assistant in Geology, Stanford University, 1914;
With J. F. Newsom, Examination of Alluvials, Cariboo and Fraser River, British Columbia, 1915;
With H. T. Beckwith as Assistant Geologist in examination of lands in Kansas and Oklahoma, 1916;
Field Geologist. Southern Pacific R. R. Co., 1916—1917:

Field Geologist, Southern Pacific R. R. Co., 1916–1917; With U. S. Army, Lieutenant, Observer, Air Service, Aeronautics, 1917–1919; Geologist, Associated Oil Co., of Wyoming, 1919–1921; Consulting Geologist and Petroleum Engineer, 500 Scott Building, Salt Lake City, Utah,

*WAELTY, WALDO RALPH: (m) A. B. Chemistry, 1913.
522 Baden Avenue, South San Francisco, California.
Assistant in Assaying, Stanford University, 1913;
Chemist with W. P. Fuller Paint Co., South San Francisco, 1913—

WALKER, HENRY EARL: 1900-1904. Vineyard Haven, Massachusetts.

*Walker, William Lester: A. B. Geology and Mining, 1903.

502 First National Bank Building, Denver, Colorado.
Assistant City Engineer, Monrovia, California, 1904;
Field Assistant, U. S. Geological Survey, 1905-1907;
Mineral Inspector, U. S. General Land Office, 1907-1912;
Chief Geologist, Associated Oil Co., 1912-1913;
Oil Development in Wyoming, 1913-1917;
Petroleum and Mining Geologist, 502 First National Bank Building, Denver, Colorado, With Pomeroy & Hamilton, 609 Carter Building, Houston, Texas, 1917-1920;
Chief Geologist and Manager, Land Department, Pierce Oil Corporation, 1920—
1918 Waggoner Building, Fort Worth, Texas.

*Wallace, Bruce: (m) 1908-1912. A. B. Mining and Metallurgy, 1917. 434 Forest Avenue, Palo Alto, California. Metallurgist, United Comstock Mines Co., Gold Hill, Nevada, 1920—

*WALLACE, DAVIS McOUAT: 1919-Student in Geology, Stanford University.

WALTON, HOWARD LACY: 1919-Ontario, California. Student in Geology, Stanford University.

*WARD, MURRAY ARTHUR: 1919-Los Angeles, California. Student in Geology, Stantord University.

WARD, NEWMAN: A. B. Electrical Engineering, 1916. 450 Tenth Street, Portland, Oregon.

†*WARING. CLARENCE ALMON: (m) A. B. Geology, 1911; A. M. 1914. Died 1919.

*WARING, GERALD ASHLEY: (m) A. B. Geology, 1905.
U. S. Geological Survey, 1906-1917;
On furlough as Hydrologist with Brazilian Government, 1910-1913;
Oil Geologist, Tulsa, Oklahoma, 1917-1918;
Geologist, Trinidad Petroleum Development Co., Ltd., Port of Spain, Trinidad, B. W. I., 1919-

*WARK, THOMAS LESLIE: A. B. Geology, 1920. Long Beach, California. Ensign, U. S. N. R., 1918-1919; Geologist, Associated Oil Co., Ventura, California, 1920—

WARNER, ADDISON WHEELOCK: 1919— Geneva, Illinois. Student in Geology, Stanford University.

WATSON, CHARLES L.: 1920—
1400 Webster Street, Palo Alto, California.
Cymric Oil Co., McKittrick, Summer, 1919;
Shell Oil Co., Coalinga, Summer, 1920;
Cymric Oil Co., Watsonville, Summer, 1921;
Student in Geology, Stanford University.

WATSON, FRANK WHALLEY: 1898-1900; E. M. Columbia, 1904. 415 West Park Street, Portland. Oregon. Vice-President, Portland Vegetable Oil Mills Co.

*Weaver, Donald Kessler: 1919-1921; A. B. Geology 1921. La Porte, Indiana.

WELCH, RAYMOND MARVIN, JR.: 1919— Alta Loma, California. Student in Geology, Stanford University.

*WHEALTON, ROWLAND G.: 1915—

Long Beach, California.

Ensign, U. S. N. R., 1918–1919.

Graduate Student in Mining and Metallurgy, Stanford University.

*Wheeler, Charles Edward: A. B. Metallurgy, 1916. Box 1842, Miami, Arizona.

WHITE, JOSEPH E.: 1897-1901.

Consulting Engineer, 905 State Street, Santa Barbara, California.

Specialist in gold and silver properties.

*WICKERSHAM, NEWTON W.: 1911-1916. Los Angeles, California.

Wihler, Alfred: 1920— Salt Lake City, Utah. Student in Geology, Stanford University.

*WILDE, FRANCIS LUQUEER: A. B. Geology and Mining, 1911.

Box 354, Dobbs Ferry, New York.

Geologist with Caribbean Petroleum Co., Venezuela, 1912-1914;

Geologist, Universal Oil Co., Lost Hills, California, 1911-1912;

Geologist, Standard Oil Co. of New York, Colombia, South America, 1914-1916;

Geologist, Mexican Gulf Oil Co., Colombia, South America, 1916;

Geologist, Gulf Refining Co. of Louisiana, Shreveport, Louisiana, 1917-1918;

Geologist, Gypsy Oil Co., Casper, Wyoming, 1918;

Geologist, S. A. Gulf Oil Co., Colombia, S. A., 1918;

Present address: c/o S. A. Gulf Oil Co., 21 State St., New York City.

*WILEY, DE WITT CHARLES: A. B. Geology and Mining, 1905. 1609 East Harrison Street, Seattle, Washington. Assistant Engineer, Bay and River Dredging Co., 1904-1906; Manager of Shingle Mill, Edmonds, Washington, 1906-1920.

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*WILHELM, VICTOR HUGO: A. B. Geology and Mining, 1907.
                                 Juneau, Alaska.

Engineer, Le Lamar Mines, Ltd., Le Lamar, Idaho;
Duplex Cyanide Plant, Seachlight, Nevada;
Sagamore Mining Co., Barnwell;
Palmer Mountain Power and Tunnel Co., Loomis, Washington;
Electrical Engineer, Copper River Railroad, Miles Glacier, Alaska;
Civil and Mining Engineer, Copper River District, and Controller Bay Coal Fields,
Miles Glacier, Cordova, Alaska;
With Wettrick & Wilhelm, Civil and Mining Engineers. Juneau, Alaska.
           WILKESON, LIVINGSTON EVANS: 1908-1910.
                                                410 Jones Bldg., Tacoma, Washington.
          WILKINSON, FRANK ROYAL: 1915-1916.
                                                Riverside, California.
    *WILLIAMS, HORACE ELBERT: (m) A. M. Geology and Mining, 1892.

Ministerio de Agricultura, Rio de Janeiro, Brazil.

Chief Topographer, Commissae Geographia de Sao Paulo, 1892-1905;
Engineer with Noroeste do Brazil Railway, 1905;
Engineer with Bahia Gas and Electric Co., 1905-1907;
Geologist of Servicio Geologico e Mineralogico de Brazil, 1907 to present.
   *WILLIAMS, WILLIAM ALFRED: A. B. Geology, 1903.

445 Riverside Drive, New York City.
Geologist with Associated Oil Co., 1908-1912;
Geologist with General Petroleum Co., 1912-1914;
Chief Petroleum Technologist in charge of Petroleum Division, Bureau of Mines, Washington, D. C., 1914-
Assistant General Manager, Empire Fuel and Gas Co., Bartlesville, Oklahoma, 1916—Assistant to the President, Henry L. Doherty Co., New York City, 1919.
**WILLIS, BAILEY: (m) Columbia School of Mines, E. M., 1878; C. E. 1879; Hon.
                                                                  Ph. D. University Berlin, 1910; gold medal, Soc. de Geographie de
                                               France, 1910.

5 Lasuen, Stanford University, California.
                                  Special Expert on Iron Ores, Tenth Census, 1879-1881;
Coal Land Expert and Geologist, Northern Pacific Railroad and allied companies, 1881-
                                Coal Land Expert and Geologist, Northern Pacific Railroad and allied companies, 1881-1884; Geologist, U. S. Geological Survey, 1884 to 1916. Carried out field work in many parts of the United States; Editor of the Geologic Atlas of the United States, 1889-1897; Assistant Director, 1897-1902; prepared the Geologic Map of North America, 1906-1910; Geologist in charge of exploration in China, under the auspices of the Carnegie Institution of Washington, 1903-1904; Representative of the Carnegie Institution and the Smithsonian Institution in Geologic Studies in Europe, 1905-1907; Delegate from the United States to the London Conference on the International Map of the World, 1909;
Delegate from the Smithsonian Institution to the Scientific Congress at Buenos Aires. 1910; Consulting Geologist to the Argentine, 1911-1914; charged with exploration, railway
                               1910;
Consulting Geologist to the Argentine, 1911-1914; charged with exploration, railway development, reclamation work, economic studies and city planning for the Minister of Public Works;
Lecturer on Geology, Johns Hopkins University, 1895-1902;
Professor of Geology, Stanford University, 1915-
In U. S. Government Service in charge of investigations of resources and problems of Latin America, May, 1918, to February, 1919;
Member of National Academy, 1920-

Constant of Contract of 
        Willis, Cornelius Grinnell: A.B. Chemistry, 1920.
Stanford University, California.
Graduate Student in Geology, Stanford University.
    *Willis, Robin: 1916-1920. A.B. Geology, 1920.
                                              Stanford University, California.
                                Graduate Student in Geology, Stanford University.
       WILSON, ARDEN MARTIN: A. B. Geology and Mining, 1905.
                              Naturita, Colorado.
Assayer and Chemist, Park New Era Mines, Mason, Montana, 1905-1906; Chemist for Monsanto Chemical Works, St. Louis, Missouri, 1906-1907; Chief Chemist, Vanadium Alloys Co., Newmire, Colorado, 1907-1911; Mine Operator (Uranium and Vanadium Ores), Nucla, Colorado, 1911-19 General Manager, The Radium Ores Co., Naturita, Colorado, 1915—
                                                                                                                                                                                                                                                                                                       1911-1915;
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WILSON, LESLIE EDWIN: 1920-Helena, Montana.

Student in Geology, Stanford University.

*WINHAM, WILLIAM PITT: A. B. Geology, 1920. Salinas, California.

Care Carl Beal, 523 Wells Fargo Bldg., San Francisco, California.

WISEMAN, PHILIP KENNETH: 1914-1915. Los Angeles, California.

*Wolf, Leslie Milton: (m) A. B. Geology and Mining, 1917. 6118 De Longpore Avenue, Hollywood, California. Ensign, U. S. N. R., 1918–1919; General Contractor.

Wood, Alfred Eugene: (m) A. B., M. E. Route I, Box 339, Campbell, California.

*Wood, James T., Jr.: A.B. Geology and Mining, 1918.
White Sulphur Springs, Montana.
Lieutenant, Field Artillery, U. S. A., 1918–1919;
Resident Geologist, Honolulu Consolidated Oil Co., Taft, California, 1919–1920.

WORKMAN, THOMAS E.: 1911-1914.
375 So. Boyle Avenue, Los Angeles, California.

*Worthington, G. C.: 1918-1922; A. B. Geology, 1922. 3001 California Street, San Francisco, California. With Empire Mine, Grass Valley, California, 1922—

†*Wright, Ernest Neall, Jr.: A. B. Geology, 1919; killed in action, October 3, 1918

*Wright, H. H.: 1915-1916. Stanford University, California. Student in Geology, Stanford University.

*Wright, Kenneth A.: 1917-1921; A. B. Geology, 1922. 339 So. Los Robles Avenue, Pasadena, California. Ensign, U. S. N. R., 1918-1919;

*WRIGHT, WILLIAM QUINBY: A. B. Geology and Mining, 1900.
210 Merchants Exchange Building, San Francisco, California. Consulting Engineer.

Wylie, James Thomas: 1913-1916. Whakarewarewa, Rotorua, New Zealand. Royal Flying Corps, 1918-1919; Present address, Walnut Grove, California.

*YEWELL, P. R.: 1913-1917.

Manager, Stanford Geologic Survey, 1916;
With U. S. Photographic Division, A. E. F., France, 1918—
Assayer, Slate Range Minerals Co., Trona, California, 1919;
Geologist, Electric Point Mining Co., Washington, 1920;
Assistant Engineer, New Cornelia Copper Co., Ajo, Arizona, 1921;
Eagineer, Cia. de Real del Monte y Pachuca, Pachuca, Hidalgo, Mexico.

Young, George Everett: 1920-San Francisco, California. Student in Geology, Stanford University.

*Young, Hayes Wilson: A. B. Geology and Mining, 1911; E. M. 1912.

Stanford University, California.

Instructor in Metallurgy, Stanford University, 1911-1916;

Assistant Professor, Metallurgy, Stanford University, 1916-1917;

With Experimental Staff, Omaha and Grant Smelter, Omaha, Nebraska, 1917;

Chemist for Netherlands Government, Golden and Colorado Springs, Colorado, 1918;

Geologist, Carter Oil Co., Casper, Wyoming, 1918-1919;

Research Geologist, Gas Dept., Mid-West Refining Co., Salt Creek, Wyoming, 1919-

Younglove, Howard Phillips: 1919— Riverside, California. Student in Geology, Stanford University.

*Zacharias, George W.: 1914-1917. Enid, Oklahoma. First Lieutenant, U. S. Air Service, A. E. F., France, 1918-1919.

*ZANDMER, S. M.: 1917-1921; A. B. Geology, 1921.
1350 West Fourth Street, Los Angeles, California.
Assistant in Assaying, 1921;
Graduate Student in Mining and Metallurgy, 1921-1922.

*ZOFFMAN, GEORGE FREDERICK: A. B. Geology and Mining, 1907.
Magdalena Estde Jalisco, Mexico, care Cinco Mines.
Cyanide Foreman, 1907-1908;
Engineer and Assayer, 1908-1909;
Millman, 1909;
Superintendent, Providencia Miinng Co., 1910-1914;
Superintendent, Cinco Minas Co., 1914-1918;
Assistant General Manager, Cinco Minas Co., 1919 to date.

NORTH AMERICA UNITED STATES OF AMERICA

ALABAMA	Bishop .	Barneson, H. J. Barton, M. D. Bayly, G. H. Beck, A. C. Beckwith, P. Boulware, Gil.
	Cashbaugh, W. A. McEuen, A. H. Teel, C. C.	Barton, M. D.
Florence	McEuen, A. H.	Bayıy, G. H.
Cameron, H. F.	Teel C C	Beck, A. C.
	Design C. C.	Beckwith P
	Burlingame	Boulware Gil
ARIZONA	Dodd, R. W.	Brotherton, T. W.
	Donaldson, M. S.	Diotherton, 1. W.
Bisbee	Stuart, W. E.	Bundy, D.
Lyman, Geo. B. Morgan, M. E. Motz, R. L.	Cambell	Bundy, D. Clark, H. R. Coleman, W. P. Cunningham, B. L.
Morgan, M. E.	Oliver, H. M.	Coleman, W. P.
Motz. R. L.		Cunningham, B. L.
Smith, L. A.	Campo Seco_	Curtice, A. A.
Globe	Fuller, R. A.	Curtice, A. A. Doheny, E. L. Elliott, I. E. Fyfe, A. D. Hall, E. B.
Shutts, A. B.	Corona	Elliott I E
Matalf	Jameson, J. G.	Fula A D
Metcalf	Coronado	Holl W B
Chapin, H. A.	Matthewson, A. A.	nail, E. D.
Miami		Hayes, A. S.
Pehrson, E. W.	Covelo	Henderson, P. L. Hendy, W. H. Jackson, B. N. Johnson, H. R. King, V. L. Knepper, E. H. Lane F.
Wheeler, Chas. E.	Spurlock, H. E.	Henry, W. H.
Morencl	Cupertino	Jackson, B. N.
Starnes, X. B.	Wylie, J. T.	Johnson, H. R.
Oatman	Delano	King. V. L.
Ketelsen, C.	Chappell, C. C.	Knepper E H
	El Cajon	I and F
Phoenix	Kessler, H. H.	130110, 1
Christy, F. C.	Eureka	Leib, E. R.
Lunrs, A. C.		Little, R. Loel, W.
Macpherson, F. R.	Bell, Henry H.	Loel, W.
Melczer, E. A.	Exeter	Louis, G. E.
Melczer, E. A. Tarpey, D. Taylor, L. J.	Chandler, H. H.	McFadden, R. J.
Taylor I. I	Ewing, T. G.	Mason H F
Day	Fellows	Marritt F C
Ray	Caldwell, D. L.	Moron D D
Emiott, F. L.	Spencer, L. M.	Moran, R. D.
Elliott, E. L. Luhrs, A. C.	Fillmore	Loei, W. Louis, G. E. McFadden, R. J. Mason, H. F. Merritt, F. C. Moran, R. B. Neuner, C. M. Olmsted, C. E.
Tempe	Fillmore	Olmsted, C. E.
McNary, C. D.	_ Masters, E. W.	Olshausen, B. A.
Tucson	Fresno	Packard, M.
Guild, F. N.	Chandler, C. I.	Perry. S. S.
Gulla, 21 211	Fisher, R. P. McNulty, H. W. Thomson, A. M.	Olmsted, C. E. Olshausen, B. A. Packard, M. Perry, S. S. Potter, J. A. Reed, J. D. Rolfe, F. Rook, R. H. Rosenberg, L. M.
	McNulty, H. W.	Pood I D
ARKANSAS	Thomson A M.	Reeu, J. D.
AKKANSAS	Glant	Rolle, F.
El Dorado	Chalatongon F C	Rook, R. H.
Cavender, A. C.	Christensen, E. S.	Rosenberg, L. M.
Fayetteville	Gilroy Cullen, T. J. Grass Valley	Rosenberg, L. M. Ross, H. S.
Decks M E	Cullen, T. J.	Cahallanhaah (1 H
Drake, N. F.	Grass Valley	Sentous, A. A. Strong, A. M. Thoms, C. C. Vickery, F. P. Wickersham, N. W. Wiseman, P. K. Workman, T. E.
	McClellan, H. M. Nobs, F. W.	Strong A M
	Nobs. F. W.	Thoma C C
CALIFORNIA	Worthington, G. C.	Thomas, C. C.
= .	Hammonton	Vickery, F. P.
Alameda		Wickersnam, N. W.
Charlot, L. E. Sundell, A. L.	Dole, A. R.	Wiseman, P. K.
Sundell, A. L.	Hemet	Workman, T. E.
Alhambra	Nissen, R. C.	Zandmer, S. M.
Gay, H. S.	Hollywood	Madera
Ansheim	Greve, F. H.	Smalley, G. R.
Fay, James A. Angels Camp	Greve, F. H. Wolf, L. M.	
Angele Camp	Huntington Beach	Madrone
Bongard, J. F.	Deckman, D. A.	Bartell, M. J.
	Kerto	Maricopa
Avon		Rogers, R. G.
Schrader, G.	Brown, H. A.	Mariposa
Bakersfield	Menke, J. H.	Carey, E. P.
Ferguson, R. N.	Kingsburg	Menio Park
Parsons, C. W.	Melcon, Z. K.	
Parsons, C. W. Rush, F. W.	La-Mesa	Classen, W. J.
Berkeley	Goodall, C. F.	Hunter, K. N.
Anderson, F. M.	Lindsay	Mill Valley Collins, W. C.
Cleaveland, N.	Daniells, A. A.	Collins, W. C.
Diegondorf U U	Tourtillot, R. R.	Modesto
Dievendorf, H. H. Dragon, P. L. Havens, H.		Campbell, H. F.
Dragon, P. L.	Long Beach	Cressy, C. J.
Havens, H.	Dubendorf, H. H.	Cressy, C. J. Pike, K. W.
Holway, R. S. Kent, H. M.	Los Angeles	IIIC, IX. VV.
Kent, H. M.	Andrews, G. L.	Monrovia
Birds Landing	Arnold, R.	Bowes, G. H.
Stipp, T. F.	Arrell, D. B.	Slemons, H. M.
~bb!	•	

Mountain View	Burrell, L. Burtt, P. D. Caldwell, D. L. Campbell, H. A. Code, T. K. Collom, R. E. Cope, E. C. Copley, R. D. Declus, L. C.	San Pedro
Huff, W. E.	Coldwell D. I.	Kirchner, E. M. Morero, J. E.
Natoma Smith, R. G.	Campbell, H. A.	Santa Barbara
Onkland	Code, T. K.	Santa Barbara Hollister, J. J. White, J. E.
Coates, E. A. Haines, W. H. Jackson, R. Moore, R. Sevier, M. W. Stephens, J. F.	Collom, R. E.	White, J. E.
Haines, W. H.	Cope, E. C.	Santa Cruz Frapwell, W. R Lang, G. I. Rice, E. W. Thorne, W. E. Saussito
Jackson, R.	Declus L. C.	Lang. G. L.
Moore, R. Sevier M W	Declus, L. C. Derby, R.	Rice, E. W.
Stephens, J. F.	Duncan, R. F. M.	Thorne, W. E.
	Erb, B. E.	
Amundsen, W. B.	Derby, R. Duncan, R. F. M. Erb, B. E. Erich, E. E. Filey, E. P. Fish, L. S. Folsom, D. M. Forbes, J. H. Freeman, L. R. Gilman, C. E. Haehl, H. L. Hake, B. F. Hammon, W. C. Hellwig, H. F. Huston, H. L. Jehnston, D. M. Jost, F.	Cobb, W. L. Jukich, M. J.
Oil Fleids Rehm, F. E.	Filey, E. F. Figh I. S	Shingle
Renni, F. E.	Folsom, D. M.	Bell, J. H.
Pacific Grove Nix, S. A.	Forbes, J. H.	Shoshone
D-1- Alba	Freeman, L. R.	Peckham, A. Is
Bentley, H. B.	Hoshi H I.	South San Francisco
Bontz, C. K.	Hake. B. F.	South San Francisco Waelty, W. R. Turner, F. W.
Bentley, H. B. Bontz, C. K. Byxbee, J. F. Card, J. L., Jr. Crandall, B. W. Davidson, E. E. Debbel, M	Hammon, W. C.	Turner, F. W. Stanford University Abrams, H. W. Applewhite, S. P., Jr Austin, H. V. Baptie, A. S. Bassett, T. E. Bernt, D. M., J. Bishop, W. B. Boezinger, H. A Boswell, P. F. Boudreaux, R. H
Crandall, B. W.	Hellwig, H. F.	Abrams, H. W.
Davidson, E. E.	Huston, H. L.	Applewhite, S. P., Ji
Dobbel, L. M. Duryea, P. T. Fletcher, H. B.	Jost F	Rustin, D. V.
Duryea, P. T.	Jost, F. Kimball, E. B. King, P. W. Lanagan, W. H.	Bassett. T. E.
Fletcher, H. B.	King, P. W.	Bernt, D. M., J
Slocum, Le C.	Lanagan, W. H.	Bishop, W. B.
Soper, H. C.	Langstroth, F. D.	Boezinger, H. 4
Quinn, A. A. Shocum, Le C. Soper, H. C. Stanley, H. M. Stanley, G. E. Urban, J. C. Vandervoort, T Jr.	McKenna, J. S. McLaughlin, R. P. Macready, G. A. Malm, W. R. Mann, H.	Boudreaux. R. H
Stanley, G. E.	McLaughlin, R. P.	Boudreaux, R. It Bowles, T. K. Brooke, J. K.
Vandervoort T. Jr.	Macready, G. A.	Brooke, J. K.
	Malm, W. R.	Browning, B. Fa.
Anderson, D. M.	Mann, H.	Buckingham, W.
Anderson, D. M. Bettanier, L. C.	Mann, H. Mattel, A. C. Miller, E. F. Mills, L. D. Moore, N. P. Neal, M. A. Newsom, J. F. Nolan, E. D. Nutter, E. H. Ochsner, W. H. Paulsen, J. W., Jr. Plate, H. R. Rice, J. A. Rice, J. B. Short, F. R. Slaker, F. L. Steiny, H. J. Swinerton, A. B.	Buckingham, W. Burbridge, C. C. Burgher, C. C.
Hall, M. L.	Mills, L. D.	Cameron, F.
Hall, M. L. Kellogg, R. S. Lacey, W. N. McAdam, R. O'Neill, P. M. Place, R. G. Sanborn, M. H. Wright, K. A.	Moore, N. P.	Carrey, A. A. Carson, C. M. Cassel, C.
McAdam R.	Neal, M. A.	Carson, C. M.
O'Neill, P. M.	Newsom, J. F. Nolan E. D	Cassel, C.
Place, R. G.	Nutter. E. H.	Castleman, G. L. Cavanaugh, W. J.
Sanborn, M. H.	Ochsner, W. H.	Collins, G. A.
Wright, K. A.	Paulsen, J. W., Jr.	Corby, G. W.
Plymouth Duncan, R. J.	Plate, H. R.	Crandall, R. R.
Red Bluff	Rice, J. R.	Cranson, L. A.
Champlin. G. B.	Short, F. R.	Crook. M. L.
Redlands Gay, L. R.	Slaker, F. L.	Crook, W. J.
Gay, L. R.	Steiny, H. J.	Culkin, E. A.
Redondo	Swinerton, A. B.	Cutier, H. H.
Gillespie, B. W.	Taff. J. A.	Davison, M. P.
Riverside	Taff, J. A. Turner, H. W. Wood, J. T., Jr. Wright, W. Q.	Dietrich, W. F.
Bonnett, W. H. Lett. A. H.	Wood, J. T., Jr.	Doughty, R. M.
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Amundsen, W. B.

Alston, Joseph Wade: 1899-1901 Alvarado, John Bolton: 1900-1903

Baldwin, Leroy Kingsley: 1900-1902 Barker, William Cyrus: 1900-1902 Bateman, Victoria: 1895-1897

Beck, Paul

Birmingham, James Everett: 1904-1906 Blake, George Albert: 1907-1909 Bowling, Charles Henry: 1915-1918

Call, Richard Ellsworth: 1891-1892 Case, Paul Julian: 1902-1905 Clack, George Sidney: 1902-1904 Cozzens, William Lloyd: 1902-1906

Crosby, Fred A.: 1896-1897

Dulley, William Brunton: 1895-1896 Gilchrist, Samuel Augustus: 1895-1897 Griffin, Allan Tristam: 1902-1905

Harvey, Frederic Estabrook: 1893-1898 Helwig, Lester Henry: 1900-1902

Jack, Harry McGavran: 1901-1903

McCabe, Harry Manning: 1900-1902 MacIntyre, John Malcolm: 1904-1907 McIntyre, Eugene Blake: 1896-1897 Merriam, Henry McP.: 1897-1898

Millis, William Lee: 1905-1909

Neff, Clarence William: 1904-1907 Noteware, Philip Joseph: 1898-1900

Privis, Frank Reeves: 1907-1909

Ramsay, Reginald Crawford: 1904-1906 Reeves, William Clyde: 1898-1903 Reynolds, Fred Emory: 1890-1894 Riesner, Roy Milton: 1906-1908

Sanderson, Jerry Blaine: 1902-1904

Sinclair, W. J.

Skinner, John Kenneth: 1909-1913 Smith, Walter Iney: 1908-1910 Stedler, Charles John: 1902-1904 Steele, Edgar Willis: 1897-1899

Taylor, Wilder: 1899-1903 Thomas, Don Horace: 1908-1911 Thomas, John Shepard: 1894-1899 Trost, Brice Loveland: 1902-1905

Wadsworth, Philip Arthur: 1897-1900 Watson, Charles E.: 1891-1892 Watt, Fred William: 1896-1897 Wegis, Antone Henry: 1911-1913 Weidman, Edwin Marston: 1909-1911 Wilbur, Ralston Thorton: 1896-1897

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